CAR AND DRIVER®

SEP/2017

INTELLIGENCE. INDEPENDENCE. IRREVERENCE.

CHARTING THE CHANGES IN TECH, SAFETY, AND STYLING:

NEW CARS FOR 2018

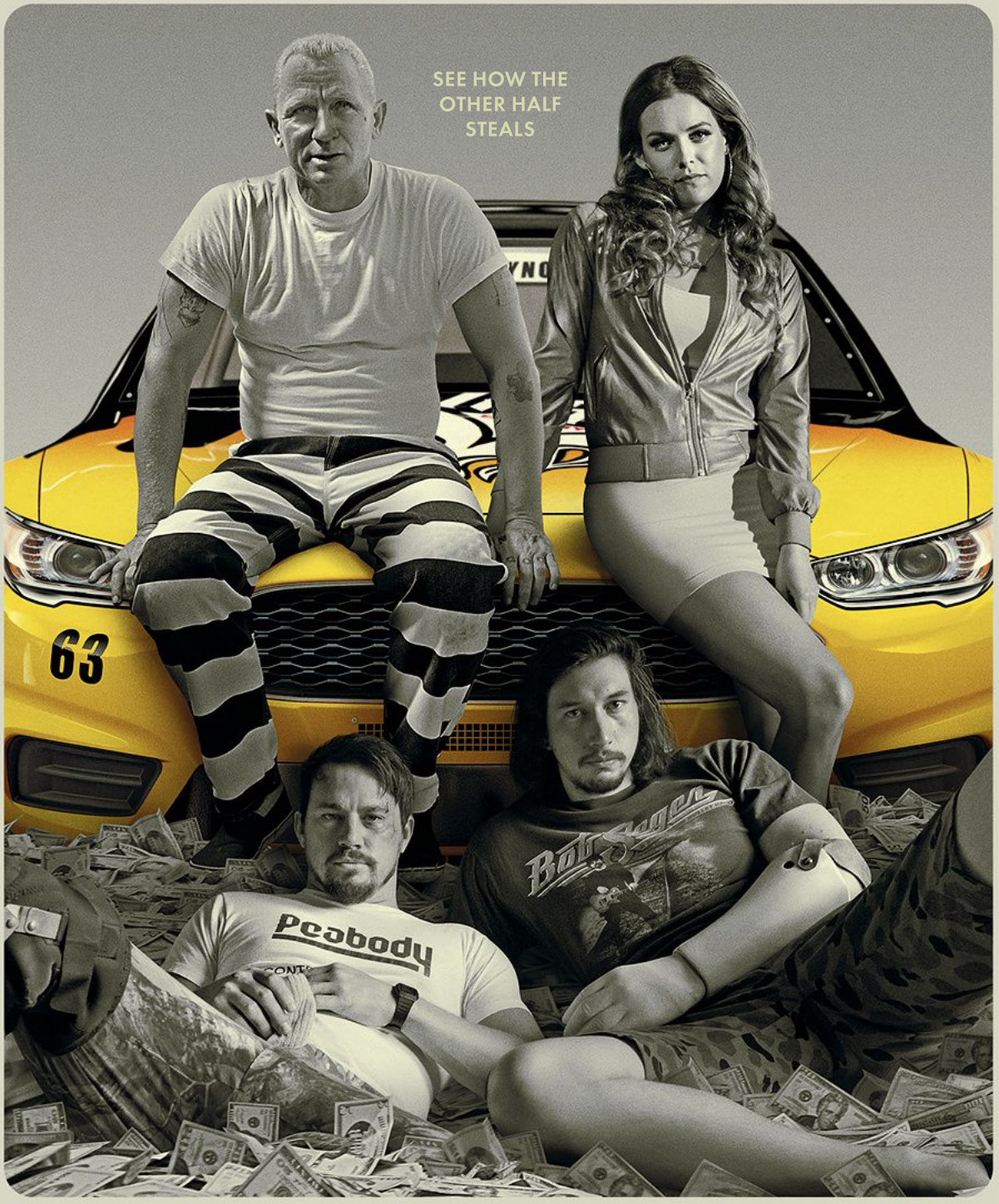
EVERY MODEL ON SALE IN AMERICA!

Including the Alfa Romeo Stelvio, Chevrolet Camaro ZL1 1LE, and the menagerie of beasts on this cover.

2017 Mazda CX-5 Grand Touring available in Soul Red Crystal Metallic

"EXQUISITE"
-Joshua S., Hurst, TX
ALL-NEW MAZDA CX-5
How do you enhance the already bold, distinctive lines of the all-new Mazda CX-5? By crafting Soul Red Crystal Metallic, a new signature paint that achieves an even higher level of energy and vividness. With one glance, Joshua had just one word to describe it all. Why do we create such alluring details? Because Driving Matters.
DRIVING MATTERS®
mazda

FROM THE DIRECTOR OF **OCEAN'S 11, 12, 13** AND **MAGIC MIKE**



LOGAN LUCKY

FINGERPRINT RELEASING PRESENTS IN ASSOCIATION WITH BLEECKER STREET CHANNING TATUM ADAM DRIVER SETH MACFARLANE RILEY KEOUGH KATIE HOLMES KATHERINE WATERSTON DWIGHT YOAKAM SEBASTIAN STAN BRIAN GLEESON JACK QUAID WITH HILARY SWANK AND INTRODUCING DANIEL CRAIG AS JOE BANG "LOGAN LUCKY" CASTING CARMEN CUBA, CSA MUSIC DAVID HOLMES COSTUME DESIGN ELLEN MIROJNICK PRODUCTION DESIGN HOWARD CUMMINGS CO-PRODUCERS KEN MEYER MATT SUMMERS EXECUTIVE PRODUCERS MICHAEL POLAIRE DAN FELLMAN ZANE STODDARD PRODUCED BY GREGORY JACOBS MARK JOHNSON PRODUCED BY CHANNING TATUM REID CAROLIN WRITTEN BY REBECCA BLUNT DIRECTED BY STEVEN SODERBERGH

FINGERPRINT RELEASING

PG-13 LANGUAGE AND SOME CRUDE COMMENTS

www.LoganLuckyMovie.com

AUGUST

SOUNDTRACK AVAILABLE ON milan

© 2017 INCARCERATED INDUSTRIES INC. ALL RIGHTS RESERVED.

BLEECKER STREET

Car and Driver. vol. 63, no. 3

In this Issue:

"Through the hills of northern Italy, the Ferrari 812 Superfast moves as effortlessly as a wingsuit."

—JARED GALL, "SUPER FAST"

066

Features

042
First Drive
ALFA ROMEO STELVIO
Can the Stelvio be a better crossover without first being a better Alfa Romeo?
by Eric Tingwall

046
First Test
ASTON MARTIN DB11
This Aston is a masterpiece among the masses.
by Tony Quiroga

048
First Drive
AUDI A5 SPORTBACK
Everything's fine, says the good old-fashioned sedan.
by Alexander Stoklosa

056
First Test
CHEVROLET CAMARO ZL1 1LE
It's a bird! It's a plane! It's . . . Super Camaro!
by K.C. Colwell

062
First Test
CHEVROLET EQUINOX LT 2.0T AWD
Chevy's up-engined Equinox is great, and cats are marrying dogs.
by Eddie Alterman

066
First Drive
FERRARI 812 SUPERFAST
Super. Fast.
by Jared Gall

On the Cover

These three new vehicles have very little in common.
photography by John Roe

CONGRATS WEATHERTECH® RACING

3RD PLACE PODIUM
24 HOURS OF LE MANS 2017

WeatherTech®

© 2017 by MacNeil IP LLC

Accessories Available for

Acura · Audi · BMW · Buick · Cadillac · Chevrolet · Chrysler · Dodge · Ferrari · Ford · GMC · Honda · Hummer · Hyundai · Infiniti · Isuzu · Jeep · Kia · Land Rover
Lexus · Lincoln · Maserati · Mazda · Mercedes-Benz · Mercury · Mini · Mitsubishi · Nissan · Oldsmobile · Plymouth · Pontiac · Porsche · Saab · Saturn · Scion
Subaru · Suzuki · Toyota · Volkswagen · Volvo

Order Now: 800-441-6287

American Customers
WeatherTech.com

Canadian Customers
WeatherTech.ca

European Customers
WeatherTech.eu

Car and Driver.
vol. 63, no. 3

126

Features, continued

072
First Test
GENESIS G80 SPORT AWD
Genesis's smallest sedan—for now—wants to be a grown-up.
by John Pearley Huffman
—

076
First Test
HONDA CIVIC TYPE R
Turbo kicked in, yo!
by Daniel Pund
—

090
First Drive
KIA STINGER
A satisfying niche filler from the most unlikely of sources.
by Aaron Robinson
—

098
First Test
MERCEDES-AMG C43 4MATIC SEDAN
It packs a mighty punch for a tweener.
by Mike Sutton
—

108
First Drive
TOYOTA CAMRY
The stalwart sedan wants to get down and party.
by Joe Lorio
—

110
Comparison Test
REAL #VANLIFE
Chrysler Pacifica Limited, Honda Odyssey Elite, Toyota Sienna Limited Premium.
by Jeff Sabatini
—

120
First Drive
VOLKSWAGEN TIGUAN
By inflating this crossover, VW solves some problems but also creates new ones.
by Joseph Capparella
—

122
First Drive
VOLVO XC60
Condensing the XC90's seductive potion.
by Joe Lorio
—

126
Feature
WHATCHA GONNA DO WHEN THEY COME FOR YOU?
How fast does your car need to be to outrun a cop?
by Ezra Dyer

Departments

—

Columnists

012 . EDDIE ALTERMAN
What's new is old again.
032 . JOHN PHILLIPS
Johnny's Adventures in Wonderland.
034 . AARON ROBINSON
The world is imperfect . . . in part because of Lotus.
036 . EZRA DYER
The first of Dyer's two hair-metal band references this month.

—

Upfront

017 . 20 QUESTIONS
Answers to your 2018 automotive anxieties.

—

Etc.

009 . BACKFIRES
Ed Regis: Maybe bugs don't "disappear." Maybe, just maybe, they occupy a quantum superposition of two different locations at once. Feel better?
132 . WHAT I'D DO DIFFERENTLY
Mike Flewitt.

NEW JAGUAR F-TYPE

FAMILIAR CORNER. NEW EXPERIENCE.

JAGUAR

From the 340 hp Supercharged V6 to the 575 hp Supercharged SVR, the 2018 F-TYPE lineup has been fine-tuned to give you the most sensational drive from Jaguar. The full lineup has been restyled to improve aerodynamics, while Torque Vectoring provides spectacular cornering.† Adaptive LED headlights and clever interior refinements complete the new look. And, every F-TYPE is available as a coupe or convertible. It's time to reimagine the driving experience, once again.

JAGUARUSA.COM

JAGUAR ELITECARE

BEST IN CLASS COVERAGE*

5 YEARS 60,000 MILES

- New Vehicle Limited Warranty
- Complimentary Scheduled Maintenance
- 24-Hour Roadside Assistance
- Jaguar InControl® Remote & Protect™

THE ART OF PERFORMANCE

Model Shown: 2018 Jaguar F-TYPE SVR Coupe with optional carbon ceramic brake package. European license plate shown. †These features are not a substitute for driving safely with due care and attention, and will not function under all circumstances, speeds, weather and road conditions. The driver should not assume that these features will correct errors of judgment in driving. Please consult your vehicle's owner's manual or your local authorized Jaguar Retailer for more details. *Class is cars sold by luxury automobile brands and claim is based on total package of warranty, maintenance and other coverage programs. For complete details regarding Jaguar EliteCare coverage, please visit JAGUARUSA.COM, call 1.855.JAGUARUSA / 1.855.524.8278 or visit your local Jaguar Retailer. © 2017 Jaguar Land Rover North America, LLC

Laufenn

Journey in Style

S FIT aS

Ultra high-performance all-season tire

G FIT aS

Touring performance all-season tire

Hankook Tire America Corp. 333 Commerce Street, Suite 600, Nashville, TN 37201

www.laufenn.com

Backfires:
The joyful noise of the commentariat, rebutted sporadically by Ed.

DEMON DROP

I am curious: Is the 2018 Challenger SRT Demon ["Quarter Pounder," June 2016] considered Dodge's "halo" car?

—Mike McPherson
Swartz Creek, MI

Hang on—I'm asking my pastor—Ed.

Demon is spelled similarly to Lemon, yet pronounced differently. Neither is pronounced like LeMons.

—Norm Girndt
Toronto, ON

Right. Now why can't Canadians pronounce Mazda?—Ed.

If you're going to strip a car down enough to take the passenger seat out, why is the infotainment system still there? Dodge could have shed tons of weight by getting rid of it. Same thing applies to the center console. If Dodge really wanted a pure drag-racing car, there would be no fancy gadgets or anything like that.

—Sebastian Larsen
Vienna, VA

After reading the article on the new Dodge Demon, I thought: I bet that the 200 or so people who still own a 1971 Dodge Demon are scheming on how to get their car in the next Mecum auto auction and cash in on the association with the current Demon model.

—David Nesbet
San Francisco, CA

When I was in high school, I drove a 1971 blue Dodge Demon with a white vinyl top. It had a 198-cubic-inch slant-six engine with a three-speed on the floor. Not exactly the 840-hp monster you reviewed this month, but it only cost me $1500 and it got me around just fine.

—Joel Groves
Simi Valley, CA

I enjoyed your coverage of the new Demon. I took delivery of my first-edition Demon in December 1970. The 1971 Demon was a Plymouth Duster with vertical taillights. My Demon was a "stripper model" with only a 318-cubic-inch engine and a rally suspension. I paid a whopping $2200 for that car! I'm disappointed Dodge didn't bring the vertical taillights back. Other than that, it's quite a machine.

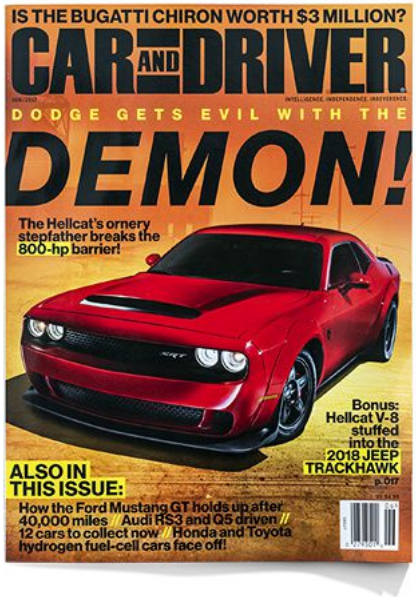
—Ray Tascarella,
Morrisville, VT

This reads a lot like a Mecum auction listing—Ed.

An 800-hp Mopar and a Bug in the same mag. My cup runneth over.

—Daniel J. Debenedetto
Halfmoon, NY

Your last name made that line runneth over—Ed.


IS THE BUGATTI CHIRON WORTH $3 MILLION?
CAR AND DRIVER
DODGE GETS EVIL WITH THE
DEMON!
The Hellcat's ornery stepfather breaks the 800-hp barrier!
Bonus: Hellcat V-8 stuffed into the 2018 JEEP TRACKHAWK
ALSO IN THIS ISSUE:
How the Ford Mustang GT holds up after 40,000 miles // Audi RS3 and Q5 driven // 12 cars to collect now // Honda and Toyota hydrogen fuel-cell cars face off!

"I BET THAT THE 200 OR SO PEOPLE WHO STILL OWN A 1971 DODGE DEMON ARE SCHEMING ON HOW TO GET THEIR CAR IN THE NEXT MECUM AUTO AUCTION . . ."

◀

CELLMATES

As I was reading the "La La Land" comparison test in the June issue, I came across an enigma. The "Final Results" sidebar was sponsored by Shell V-Power Nitro+ Premium Gasoline. Why so strange? The article is about hydrogen-powered cars!

—Bill Craft
Fort Russell, IL

Craft, Shell has hydrogen stations, too—Ed.

My heart bled, truly, for Jeff Sabatini for his lipstick-bearing pig of an article, "La La Land." If there's a hell in automotive journalism, Mr. Sabatini must have sinned greatly in his early years. To score a gig with *C/D* only to write prose about the Honda Clarity and

Toyota Mirai. . . the Tata Nano looks positively supermodel sexy by comparison.

—David Morrison
Philadelphia, PA

Your test of hydrogen-fuel-cell cars in the June issue ignored a critical point. In the event of an accident, do you really want to be sitting on a tank full of explosive gas pressurized to many atmospheres, with all kinds of sparky electrical stuff in front of you? Remember the *Hindenburg*!

—Graham Andrews
Spokane, WA

I only remember the humanity—Ed.

You guys are right, those are a couple of pitiful-looking cars. If this is what California greenies think they want, their car is here. Just pitiful.

—Sam Carkhuff Sr.
Topeka, KS

So, you guys stated that the Toyota Mirai "simply must be considered among the worst-looking cars of all time." I completely agree. But why did it receive three points for exterior styling in the recent comparison test? What on earth are you saving numbers 1 and 2 for?

—Heisenberg
Somewhere, NH

Last night I came home at 2 with a 10, but at 10 I woke up with a 2—Ed.

Your test results for the Toyota Mirai show identical 8.9-second times for its zero-to-60-mph and 5-to-60 acceleration tests. For the Honda Clarity the zero-to-60-mph time was 8.1 seconds while the 5-to-60-mph time was 8.3 seconds. With a single-speed direct-drive transmission, how is it possible for these cars to take as long or longer to go from 5 to 60 mph as it takes them to go from zero to 60? I don't doubt that the numbers are correct, I just don't understand what would cause this to be the case.

—Mark A. Holland
Nashua, NH

The Clarity's powertrain allows the motor to push against the brakes while stopped—a technique known as brake torquing—which gives the car a better launch and a slight advantage in the zero-to-60 run. The Mirai can't be brake-torqued, but its immediate torque delivery makes for identical times to 60 from a stop and from a 5-mph roll—Ed.

La La Land

Honda and Toyota both promise that hydrogen fuel cells will power the cars of tomorrow. We test their mettle today. ...by Jeff Sabatini

...photography by Marc Urbano

Absorbing It All // The Black Art of Suspension Tuning //

"SO WHAT DID I TAKE FROM SUCH A TECHNICAL DISCUSSION OF SUSPENSION GEOMETRY AND DYNAMICS? A NEWFOUND RESPECT FOR THE PLATYPUS."

BELTS AND SUSPENDERS

The "Absorbing It All: The Black Art of Suspension Tuning" piece in the June issue is the best car article I've read in a long time! With more folks engaging in (or at least contemplating) track days, the article is a great start to understanding vehicle dynamics.

—Mike LaBate
Littleton, CO

So what did I take from such a technical discussion of suspension geometry and dynamics? A newfound respect for the platypus.

—J. Peter Scherer
Newport Beach, CA

MO' MONEY, MO' PROBLEMS

I was reading your report on the Bugatti Chiron ["Superbug," June 2017], looking at the photos of the splendid interior, and noticed a glaring omission there: no cupholders! Why doesn't a $3 million car have any cupholders? Well, that's a deal breaker for me; I'm not buying one.

—Aron Green
Los Osos, CA

Don't all you rich guys have full-time valets to hold your Big Gulps?—Ed.

I appreciate that you crammed reviews of both the 0.5-hp, under-$2000 URB-E electric scooter—ooh, the PRO GT version—and the 1500-hp, $3,000,000 Bugatti Chiron into the same issue. Both get you from point A to B, and both are fugly. I suspect automotive and economic reality lies somewhere in between. Although, regarding the economics, if Camaros such as the ZL1, also reviewed in the issue, are going for $65,000, then what do I know?

—Darryl C. Brown
New York, NY

LISTING HEAVILY

Brett Berk's story ["How Do You Make the List? Be Like These Guys," June 2017] is the most fascinating thing I have read in my 20 years as a subscriber. While I suppose my naiveté is revealed by stating that I was initially surprised that such a list exists, by the time I finished reading, I realized I shouldn't be. Thanks for the insight. Please keep stories like this in the magazine.

—Andrew Snyder
Paoli, PA

Unsure whether to be more fascinated or nauseated after reading Berk's "List" piece in the June issue. Call it a draw.

—Ben Cimino
Syracuse, NY

PONY RIDES

I thought you nailed the wrap-up piece on your long-term 2016

STRONG.

AS. HELL.

REVV® is strong coffee. Like, really strong. Devilishly strong. Pretty damn good, too. In other words, it's just what you need. So drop one in your Keurig® brewer and **WAKE. THE HELL. UP.**

THINK YOU CAN HANDLE IT? **FIND OUT AT REVVCOFFEE.COM/CAR**

Ford Mustang GT [June 2017]. My 2016 GT Premium, with six-speed manual, is the 10th Mustang I have owned in my 70 years (mostly '65s and '66s), and I have to say, it is by far the best one. I drove a Camaro SS and a Challenger but, like you, I found the Mustang GT the most enjoyable one to drive. It may not always be the fastest, but it never fails to put a big grin on my face every time I fire it up. It's fast, stylish, comfortable, and inspires confidence to try to wring just a bit more out of it every time I go for a drive. This Mustang just may be good enough to be the last one I ever buy.

—Steve Williams
Cumming, GA

I thoroughly enjoy your long-term reviews. Having owned a six-speed manual 2008 Mustang GT Premium in Vapor Silver, I can tell you that the dealer's "everything is operating within normal parameters" statement in response to your complaint of a clunky rear end is common. Be thankful that you had the opportunity to return your car at 40,000 miles. The rest of us end up paying about $2300 to have the rear end rebuilt. And before you ask, no drag racing for my pony or me.

Imagine my surprise when I discovered too late that there was a service bulletin out about a "clunk" requiring pinion and carrier gear replacement. Meeting with the ombudsman after the fact only resulted in additional frustration.

Lesson learned. All dealership service departments are not equal. Be sure to check the service bulletins online and reference the pertinent bulletin when you ask for service. Make them prove you wrong.

—Andy Meyer
Jackson, MO

Would you please stop photographing black cars in the dead of night? Who can see the goddamn car, for Chrissake? They just disappear like bugs.

—Ed Regis
Sabillasville, MD

"WOULD YOU PLEASE STOP PHOTOGRAPHING BLACK CARS IN THE DEAD OF NIGHT? . . . THEY JUST DISAPPEAR LIKE BUGS."

▼

Long-Term Test: When the tires get worn and the factory warranty runs out, that's where we come in. Car and Driver is your source for the 40,000-mile evaluation.
2016 FORD MUSTANG GT
Arrival: Oct/2015
Departure: Mar/2017
"PARK A LOT OF CARS IN MY DRIVEWAY, BUT NOTHING BRINGS OUT THE NEIGHBORS LIKE THE MUSTANG."

Editor's Letter:

It may seem strange to kick off our annual new cars issue with musings about an old car, namely my just-acquired 1971 Porsche 911T coupe with the original carbureted 2.2-liter flat-six. But there is a point to this prideful boast, and it lies in what I'm learning about new cars from my old one. To wit:

1. Everyone follows too closely. Nobody pays attention.

The late Martin Swig, he of California Mille fame, used to say this about the erosion of safe following distances: "The world started going to Hell with the advent of disc brakes." Throw the efficacy of today's multi-piston systems onto a fleet of behemoth trucks and SUVs, and it's no wonder everyone feels perfectly comfortable at stoplights doing the old Lewis Hamilton late-braking maneuver to within millimeters of my recently replated engine-cover badges. But alas, when the light turns green, nobody moves. Something really cool must be happening on Instagram, like a Pomeranian in a bunny costume riding a Roomba. Meanwhile, I can't even listen to my AM/FM radio while driving, lest I lose concentration and send the thing ass-first into a spruce.

2. Modern cars look terrifying.

It's reasonable to blame economic factors and iPhones for young adults' decreasing desire to drive, but maybe that's also a little facile. Have we ever considered that cars today look as if they're trying to kill you? They're engorged and flared and in display, all nostrils and fangs—even the Camrys. They're like huge multi-legged creatures of the rainforest, poised to jump off a tree and attach themselves to your face. Seen through the thin rear pillars of my glorified Beetle, these monsters send me back to those early days of driving, when fear was my co-pilot and joy had yet to reveal herself.

3. Light is right.

That Porsche I'm bragging about? It weighs just 2200 pounds. That's about 3000 pounds lighter than a Cayenne Turbo S. So it only needs its 125 horsepower to feel fast, and its ride and braking are sublime. Of course, it's about as safe as a balsa-wood fighter plane, but the roads would be a much more entertaining place if cars were this light and pure again. Imagine all the engineering advances of the intervening five decades in the service of lightness! Imagine all the attention we'd be paying to one another!

—Eddie Alterman

ACURA

PRECISION CRAFTED PERFORMANCE

LONG
LIVE
PERFORMANCE

When you create a New Sportscar eXperience, you don't chase the competition—you chase your dreams. You build a facility that manufactures one thing: performance. You assemble the world's best designers and engineers. You throw in a couple of troublemakers. And you get to work. You start with the driver. You reject benchmarks. You stay true to the feeling. You do it your way. You deliver PRECISION CRAFTED PERFORMANCE. You don't just tell the world what you've created. You find a racetrack. And you show them.

Build your NSX at nsx.acura.com/build

NSX GT3 Race Car shown. ©2017 Acura. Acura, NSX, and the stylized "A" logo are registered trademarks of Honda Motor Co., Ltd.

Where did the photo-shoot for the long-term test of the 2016 Mustang GT take place? In Pittsburgh? It's hard to tell, but I think I recognize some of the locales. Just curious.

—Jonathan Nadle
Pittsburgh, PA

As you suspected, it was shot at 3:00 a.m. in Pittsburgh, a decision that would cause Ed Regis great displeasure—Ed.

TORQUE OF THE TOWN

Aside from your broad coverage of the entire automotive landscape, I thoroughly enjoy *C/D*'s colorful metaphors. Referring to the first RS3 ["Baby Boomer," June 2017] as "a parade float at the Festival of Understeer" was brilliant. More than 200 horsepower and front-wheel drive is going to be a torque-steer fest. As a happy owner of a 2015 VW GTI, I can attest to the fact that the engine overpowers the front tires frequently—not that there's anything wrong with that. The upcoming Honda Civic Type R will likely have your writers inspired to come up with some wry comments regarding the inherent limitations of a front-drive setup trying to handle over 300 horses.

—Dave Alexander
Collegeville, PA

UGLY BUCKLING

The words "grotesque Lexus RX" have stayed with me since reading about the new Audi Q5 ["The Pale King"] in the June issue of *C/D*. I have an Ultra White 2017 Lexus RX350 F Sport and I got it because of its controversial style. Cutting edge? Literally. At home we refer to it as the "albino snowplow." But I stepped into it from a 2014 BMW M4, although there is no comparison to the performance. Whenever I drive the RX, I'm reminded that it's okay to be getting older and driving in sinful comfort and luxury with a decadent sound system.

DESTINY'S DOZEN

Upfront

▲ **"IT BROUGHT A SMILE TO MY FACE TO SEE A COUPLE OF HOT HONDAS MAKE THE LIST."**

Back to the Q5. Yes, it's nice to see that we can tell the new Pale King apart from the previous generation by dramatic styling cues: a new crease and bulge. Wow, how innovative. I can still only distinguish the Q3 from the Q5 from the Q7 in the same manner that one can tell the A6 apart from the A3, A4, and A8: I use a tape measure. Audis are styled safely and certainly are not "grotesque." Hey, everyone loves a well-rubbed bar of soap, so what's bad?

—Larry Grand
Flemington, NJ

I'll condense this letter for those of you who read just the responses: Things that are ugly get noticed and people love used soap—Ed.

HARD HAT

The June 2017 MX-5 Miata RF test ["Righteous Fashion"] is an example of why I may no longer subscribe to your magazine. You give only one page to the best-selling sports car in the world, the MX-5. You have not a single sentence on how the handling of the RF might have felt different from the ragtop. Your only photos are minuscule. Then you compound the problem by heading it with the ridiculous title "Righteous Fashion." You give five pages to an ugly car that only one or two of your subscribers would ever consider (the Bugatti), three pages to an overpowered Jeep Cherokee, and six pages to a muscle car. You are trying too hard to be cute while giving short shrift to a great car. I urge you to refocus your efforts on cars that matter to enthusiasts.

—Al Norton
Minneapolis, MN

Norton, since the latest Miata launched, we've devoted more than 15 pages to it, and in a month or so we'll be running another five pages on our long-term MX-5—Ed.

METAL MENAGERIE

Regarding the "Destiny's Dozen" article in the June 2017 issue: Not a Porsche in the bunch. So when I go looking for a nice

Explained:
The Last Math Doer Writes

I swear nobody can do basic math—except me. I refer to the Chrysler Pacifica hybrid review in the June 2017 issue ["Shock Box"]. How did you calculate that it would take more than eight years to recover the $2100 price difference in fuel savings? Let me educate you. With an estimated fuel price of $2.40 a gallon at 20 mpg, it costs $0.12 a mile. At the same $2.40 a gallon at 28 mpg, it costs $0.085714 a mile. That is a savings of $0.034286 a mile. If you divide the $2100 extra cost by 0.034286, it equals 61,249 miles to recover the extra cost. At your proposed 12,000 miles a year, it would take just over five years to break even. Any questions?

—Edith Dermondy, Trenton, NJ

The math isn't as basic as you assume, Dermondy. How are you with word problems? In 289 miles with the Pacifica hybrid, we used 8.329 gallons of gas and 66.4 kWh of electricity while charging the van once per day. Figure that this consumption pattern will repeat for the life of the vehicle. Fuel costs $2.34 per gallon and electricity costs 12 cents per kWh. Driving 12,000 miles per year, how long will it take to recoup the additional $2100 premium of the Pacifica hybrid compared with driving a gas-only Pacifica that averages 20 mpg? Hint: The answer is in the June issue—*Ed.*

Publisher and Chief Revenue Officer
Felix DiFilippo

National Advertising Director
Cameron Albergo
General Manager, Hearst Men's Group Samantha Irwin
Executive Director, Digital Advertising Sales
Deirdre Daly-Markowski

NEW YORK
East Coast Automotive Director
Joe Pennacchio
East Coast Digital Sales Managers
Brett Fickier, Mia S. Klein
CHICAGO
Integrated Sales Director
Rick Bisbee
Integrated Midwest Manager
Marc Gordon
Assistant Yvonne Villareal
DETROIT
Integrated Sales Director
Mark Fikany
Midwest Account Manager
Bryce Vredevoogd
Assistant Toni Starrs
LOS ANGELES
Integrated Sales Director
Anne Rethmeyer
Integration Associate
Michelle Nelson
Assistant Richard Panciocco
SAN FRANCISCO
Smith Media Sales, LLC
William G. Smith
DALLAS
PR 4.0 Media Patty Rudolph

HEARST DIRECT MEDIA
Sales Manager Brad Gettelfinger

MARKETING SOLUTIONS
Associate Publisher and Group Marketing Director Jill Meenaghan
Executive Director, Integrated Marketing Dawn Sheggeby
Executive Creative Director, Group Marketing Jana Nesbitt Gale
Director, Integrated Marketing Amanda Luginbill
Director, Group Marketing
Yasir Salem
Senior Manager, Integrated Marketing Michael Coopersmith
Integrated Marketing Manager
Sandy Ramos
Art Directors, Group Marketing
Elena Martorano, Michael Sarpy
Marketing Coordinator
Vincent Carbone
Senior Director, Digital Marketing
Samantha Gladis
Director, Digital Marketing
Kelly Martin
Senior Digital Marketing Manager
A'ngelique Tyree
Senior Digital Marketing Manager
Lee Anne Murphy
Research Manager Peter Davis

THE BLEND LINE
Executive Creative Director
Maury Postal
Production Director Tia Devlin
Branded Content Editor
Damien Scott
Project Director Meagan Maginot
Senior Manager, Media Strategy & Planning Scott Topel

ADMINISTRATION
Advertising Services Director
Regina Wall
Advertising Services & Accolades Manager Rebecca Taroon

PRODUCTION
Production/Operations Director
Chuck Lodato
Operations Account Manager
Elizabeth Cascone
Premedia Account Manager
Zachary Smith

CIRCULATION
Executive Director, Consumer Marketing William Carter

HEARST MEN'S GROUP
Senior Vice President and Group Publishing Director Jack Essig
Executive Assistant to the Group Publishing Director & Business Coordinator Mary Jane Boscia

Published by Hearst Communications, Inc.
300 W. 57th Street
New York, New York 10019

President & Chief Executive Officer
Steven R. Swartz
Chairman
William R. Hearst III
Executive Vice Chairman
Frank A. Bennack, Jr.
Secretary
Catherine A. Bostron
Treasurer Carlton Charles

HEARST MAGAZINES DIVISION
President David Carey
President, Marketing & Publishing Director
Michael A. Clinton
President, Digital Media
Troy Young
Chief Content Officer
Joanna Coles
Senior Vice President, Chief Financial Officer
Debi Chirichella
Publishing Consultants
Gilbert C. Maurer, Mark F. Miller

INTERNATIONAL EDITIONS
Brazil, China, Greece, Spain

HEARST AUTOS
President Nick Matarazzo

Editor-In-Chief
Eddie Alterman

Deputy Editor
Daniel Pund
Creative Director
Darin Johnson
Executive Editor
Aaron Robinson
Technical Director
Eric Tingwall
Managing Editor
Mike Fazioli
Design Director
Nathan Schroeder
Features Editor
Jeff Sabatini
Senior Editors
Tony Quiroga, Jared Gall
Reviews Editor
Josh Jacquot
Associate Managing Editor
Juli Burke
Copy Chief
Carolyn Pavia-Rauchman
Assistant Technical Editor
David Beard
Road-Test Editor C. Benn
Copy Editor Beth Nichols
Editor, Montana Desk
John Phillips
European Editor Mike Duff
Carolinas Editor Ezra Dyer
Staff Photographer
Marc Urbano
Art Assistant
Austin Irwin
Office and Invoice Manager
Susan Mathews
Road Warriors Zeb Sadiq, Maxwell B. Mortimer, Nathan Petroelje, Harry Granito

Contributing Editors
Clifford Atiyeh, Csaba Csere, Fred M.H. Gregory, John Pearley Huffman, Davey G. Johnson, Peter Manso, Bruce McCall, P.J. O'Rourke, Steve Siler, Tony Swan, James Tate, Dweezil Zappa

Deputy Online Editor
Dave VanderWerp
Executive Online Editor
Erik Johnson
Testing Director K.C. Colwell
Senior Online Editors
Joe Lorio, Mike Sutton, Kevin A. Wilson
Technology and Mobility Editor
Pete Bigelow
Environmental Editor
Bengt Halvorson
Consumer Editor David Muller
Managing Online Editor
Scott Mosher
Executive Buyer's Guide Editor
Kirk Seaman
Senior Buyer's Guide Editor
Rich Ceppos
Buyer's Guide Managing Editor
Jennifer Misaros
Online Editors Alexander Stoklosa, Andrew Wendler
Buyer's Guide Assistant Editors
Drew Dorian, Eric Stafford, Annie White
Associate Online Editors
Joseph Capparella, Greg Fink, Tony Markovich
Online Copy Chief
Rusty Blackwell
Online Copy Editors
Laura Sky Brown, Charles Dryer, Daniel Golson, Paul Livingstone
Online Staff Photographers
Alex Conley, Michael Simari
Online Production Manager
Luke Sellenraad
Assistant Online Production Manager Chris Haponek
Buyer's Guide Production Assistant Cory Wolfe
Online Production Designers
Sarah Larson, Jeff Xu
Online Production Assistants
Ron Askew, Brad Fick, Daniel Wilson
Community Engagement Manager
Jen Feeny
Photo Assistant Charley M. Ladd
Product Director Mark Quint
Interactive Design Director
Sam Conant
Interns
Ben Proffitt, Duncan Brady

Editorial Office
1585 Eisenhower Place
Ann Arbor, MI 48108

Printed in the U.S.A.

Editorial Contributions
Unsolicited artwork and manuscripts are not accepted, and publisher assumes no responsibility for return or safety of unsolicited artwork, photographs, or manuscripts. Query letters may be addressed to the deputy editor.

Using Shell V-Power® NiTRO® + Premium Gasolines and diesel fuels appropriately in all *Car and Driver* test vehicles ensures the consistency and integrity of our instrumented testing procedures and numbers, both in the magazine and online.

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

Please Recycle This Magazine

CUSTOMER SERVICE
Visit service.caranddriver.com or write to Customer Service Department, Car and Driver, P.O. Box 37870, Boone, IA 50037 for inquiries, requests, changes of mailing and email addresses, subscription orders, payments, etc.

PERMISSIONS Material in this publication may not be reproduced in any form without permission.
REPRINTS For information on reprints and e-prints, please contact Brian Kolb at **Wright's Reprints,** 877-652-5295 or bkolb@wrightsreprints.com. To order digital back issues, go to your favorite app store. *Car and Driver*® is a registered trademark of Hearst Communications, Inc. Copyright 2017, Hearst Communications, Inc. All rights reserved.

Letter of the Month:

I've been wondering how one gets a letter printed in your publication. After years of reading, I've come to the conclusion that you only print letters if one of the following words are in them: BMW, Mercedes, Porsche, Phillips, Robinson, or Dyer. I'm sorry, but it seems like bribery. I will not be a participant. So I will write no letter with the words BMW, Mercedes, Porsche, Phillips, Robinson, or Dyer. No, sir, I won't do it.

—*Brian Mayer, Powersville, IA*

Irresistible stuff, Mayer—Ed.

collector Porsche a few years down the road, the price will be a used-car price, not a collector-car price. I'll be able to afford it! Might not be able to swing for a Toyota Corolla, but yes to the classic Porsche 968 cabriolet.

—Al Northrop
Brandywine, MD

It brought a smile to my face to see a couple of hot Hondas make the list. I have a 2000 Civic Si with some simple bolt-on mods, and I love the car. Ripping that four-banger to the 8000-rpm redline is always fun.

—Tyler Reiter
Clarion, IA

This is the first time I have been compelled to write a response to your magazine. I think you should change your name from *Car and Driver* to *Car and Drugs* because John Pearley Huffman must be on drugs to choose a 1999–2000 Honda Civic Si over a 1993–1995 Mazda RX-7 in your "Destiny's Dozen" article. What are you guys thinking?

—Jim Revett
Palm Bay, FL

We're thinking of getting the jar of urine Huffman left in the office tested—Ed.

COLD COMFORT

Regarding John Phillips's description of his winter [June 2017], I can only say, "He chose it."

—Terry Zaccone
Saratoga, CA

We moved to Bozeman, Montana, from Florida. After eight years in Montana and enduring the extraordinary winter John Phillips wrote about, we bought a condominium in Tucson. Montana winter solved.

—Jim Mikelson
Bozeman, MT

ROUND AND ROUND

Roundabouts seemed common when I lived in New England ["Driving through the Sound," June 2017], but San Francisco has only one. Maybe that's why I feel lost in the city.

—Mike Matter
Sunnyvale, CA

That or the legal weed—Ed.

DADDY ISSUES

Does Travis Pastrana know who his real father is? Judging from your artist's rendering of John Buffum [WIDD, June 2017], I'd say it's him. Seems logical to me.

—Scott Martin
Madison, WI

HOW YOU REMIND ME

I'll have you know I just purchased tickets to a Nickelback concert [Backfires, June 2017].

—Max Alward
Shrewsbury, MA

Wild guess: You also like* Motor Trend*—Ed.

Esquire

GROOMING

THE ULTIMATE MEN'S GROOMING COLLECTION

The ***Esquire Men's Grooming Collection*** is a complete line of products that clean, nourish, strengthen, and style hair regardless if it's short, long, or ahem, a little of both. Formulated with proven ingredients to stimulate hair growth and exfoliate the scalp—all without harsh chemicals and parabens—the collection features expertly developed products and powerful tools for every hair type and style. Wash, style, repeat.

AVAILABLE AT ULTA: http://www.ulta.com/brand/esquire-grooming

20 QUESTIONS FOR 2018

HOW BAD COULD THINGS REALLY BE? HOW GOOD WILL THEY EVER GET? AND JUST HOW UNDERPOWERED MIGHT THE DODGE DEMON SOMEDAY SEEM? HEREWITH, YOUR BURNING CURIOSITIES EXTINGUISHED.

illustration by CHARLES WILLIAMS, *photography by* LIZ MCBURNEY

IS OUR FEARLESS LEADER REALLY GOING TO TURN BACK FUEL-ECONOMY REGULATIONS?

01 **FUEL-ECONOMY REQUIREMENTS** through the 2021 model year were set five years ago and are as impervious to change as German dietary preferences. Model years 2022 through 2025, on the other hand, are at risk. The Environmental Protection Agency pulled its final decision for that period ahead by more than a year during President Obama's last months in office, but, in March, President Trump ordered the EPA to review the regulation and potentially cut back from the 54.5-mpg fleet-average goal set for 2025. Despite the EPA concluding in January that current rules would become permanent, the agency also has the authority to, well, backtrack. Those opposed to rolling back regulations will point to the EPA's 1217-page technical report from July 2016, which determined that automakers would have no trouble complying, but the EPA could just as easily write a 1218-page document that explains otherwise. A final rule could be published in the federal register and amend U.S. code as soon as the fall of 2018.

But Americans, and in this case, specifically Californians, live to challenge laws and overturn them. Since the Clean Air Act of 1970, California has set stricter vehicle standards than the EPA through a legal waiver. The California Air Resources Board enforces these standards, which 13 other states follow. No administration has ever loosened California's bear grip on emissions. Automakers that don't want to be banished from the country's largest auto market dare not challenge the standards. Since a 2007 Supreme Court ruling that found carbon dioxide to be a pollutant that endangers human health, the EPA is supposed to be a hard-ass on our tailpipes no matter what. Environmental lawyers are locked and loaded for what could be an onslaught of litigation fighting any changes.

02) Which electrification strategy is winning out?

By our count, there are 81 different models on the market for 2018 offering some degree of electrification. Not surprisingly, traditional hybrids are the most common, but plug-ins—particularly among luxury brands—are closing the gap as carmakers seek to deemphasize internal combustion for the benefit of their shareholders' consciences.

TOTAL ELECTRIFIED OFFERINGS: 81

03) How much do cars contribute to global warming, anyway?

For comparative purposes, greenhouse gases are all normalized to CO_2 equivalents, or CO_2e. In 2015, the U.S. (excluding territories) generated 6540 million metric tons of CO_2e. Passenger cars and light-duty trucks accounted for 1083.5 million metric tons, or 16.6 percent

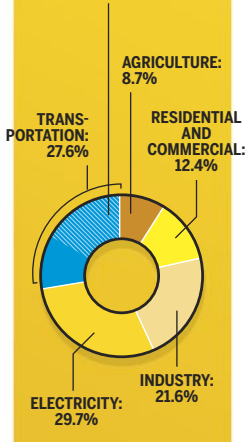
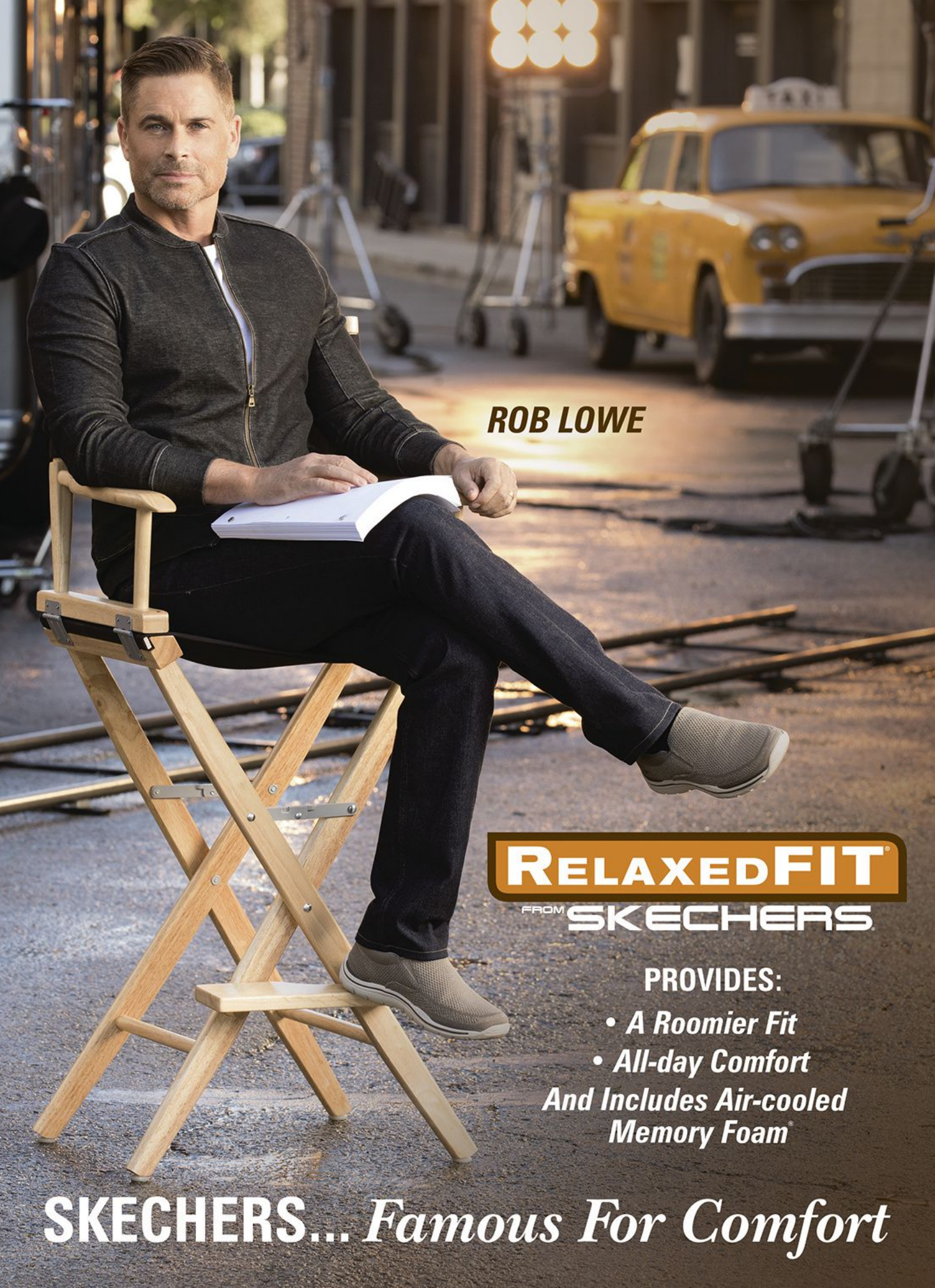


ILLUSTRATION BY T.M. DETWILER

HAVE WE HIT PEAK SUPERCAR?

04 Supercars are still a tiny part of the global car business, but the segment is growing, offering more choice than just whether you want a red or yellow Italian Stallion. New players have entered the market—McLaren is the most obvious—and the number of models and total sales has also expanded. If there's a ceiling to what the ultrarich are prepared to pay, carmakers have yet to hit it. Both the Aston Martin Valkyrie and forthcoming Formula 1–inspired Mercedes-AMG Project One sold out practically as soon as they were announced, despite price tags above $2.5 million. And things are set to get busier. Aston wants to make a less expensive mid-engined car, and Chevrolet's decision to make the next Corvette mid-engined could democratize the whole game.


ROB LOWE
RELAXEDFIT
FROM SKECHERS
PROVIDES:
• A Roomier Fit
• All-day Comfort
And Includes Air-cooled Memory Foam®
SKECHERS... Famous For Comfort

If it's obvious that traffic deaths are increasing due to smartphone distraction,

05 WHAT IS STOPPING THE FEDS FROM REGULATING PHONE USE IN CARS?

THEY'RE TRYING, but the National Highway Traffic Safety Administration, created during the era of rotary phones, has no legal authority over any handheld device. Nor does any other federal law or agency regulate how manufacturers of consumer electronics design their user interfaces or functionality, let alone what the devices can do in a car. Not that legal authority would automatically lead to a fix; preventing drivers from being distracted by their smartphones would mean either blocking all smartphone use in a vehicle or identifying which phone is the driver's and forcing only that one into a silent mode. The former is politically unfeasible, while the latter involves many significant technical hurdles.

Still, in November, NHTSA issued guidelines to the consumer electronics industry, just as it did in 2013 for factory infotainment systems. Android Auto and Apple CarPlay follow much of the agency's wish list—limiting text, graphics, and videos; simplifying menus; and enabling control of the phone through the car's system—to reduce a driver's temptation to thumb the phone. NHTSA wants phones, as well as aftermarket stereo head units and GPS devices, to automatically lock out certain functions depending on the car's selected gear and speed. It also wants detection technologies that reliably identify driver and passenger phones without such tech being "overly annoying" to users. The agency will score one major victory with the fall release of Apple's newest iPhone operating system, which includes a Do Not Disturb While Driving mode that blocks all incoming notifications—although the feature only works if the user enables it.

And NHTSA's guidelines are voluntary, meaning that the states are the front line in this battle. Forty-seven of them already ban texting while driving, while 14 ban any handheld use. But, according to NHTSA, the number of nonfatal distraction-related crashes involving cellphones increased 41 percent between 2007 and 2014, when many of these laws were enacted.

06) Will car buying ever be as easy as upgrading a cellphone?

A few automakers hope so. In California, Hyundai sells the Ioniq Electric like a cellphone subscription. You choose from one of three monthly prices with all fees and options baked in. While this deal is technically a lease, none of the varying finance charges or dealer add-ons that inevitably inflate a manufacturer's advertised number apply. And Toyota is one year into a pilot fixed-price program called Lexus Plus, currently running at 11 of Lexus's 238 dealerships scattered across the country. Some experts see the model gaining traction with younger generations, who may not be as keen to negotiate, but no such sweeping change is on the immediate horizon. If you're in the market now or will be soon, better hone your haggle game.

08) Are touchscreens really an improvement?

To designers trying to squeeze more functionality into cars, touchscreens, which can pack hundreds of functions into a single interface, remain a godsend. To a driver trying to locate a seldom-used control while wearing polarized sunglasses and heading toward the setting sun, the benefits seem less obvious. Automakers are throwing resources at developing their user interfaces, but it's fair to say that none has managed to come close to the intuitive simplicity of a decent tablet or smartphone. The touchscreen of a $100,000 car often lacks the smarts of a $400 iPad, requiring several separate inputs to do something that used to be possible with one button, such as changing a radio station. More manufacturers are following Tesla's lead and abolishing even conventional ventilation controls, with cars like the next Audi A6 becoming screen-only. But Honda, which committed so thoroughly to screen-based systems that it put two in some cars, has recently begun adding old-fashioned volume knobs back into certain vehicles. We're betting that within a decade, some bright spark will be marketing a dial that adjusts the temperature as a radical innovation.

WILL THE 12-VOLT ELECTRICAL ARCHITECTURE GO AWAY?

07 As automakers lean on power-hungry hardware such as electric compressors, the humble 12-volt battery will die hard—just not for another 20 years or so. Raj Rajkumar, an IEEE fellow and a professor of electrical and computer engineering at Carnegie Mellon, says cars will likely use 48-volt subsystems in addition to the 12-volt—as the Bentley Bentayga does—in a transitional phase. But once the switch is made, 48-volt wiring harnesses will be thinner and lighter than the 12-volt apparatus.

PHOTO BY SPENCER PLATT/GETTY IMAGES. ILLUSTRATION BY T.M. DETWILER

DEVOTED TO PROTECTION.®

When it comes to protecting the vehicle you love, there's a motor oil that has the next-level fortification you demand. AMSOIL provides 75% more engine protection against horsepower loss and wear than

required by a leading industry standard*, extending the life of vital components like pistons and cams. Find out how we can defend your engine. Enter the fortress at **amsoilprotects.com.**

*Based on independent testing of AMSOIL Signature Series 5W-30, in ASTM D7320 as required by API SN specification.

AMSOIL®

Call or go online for our **FREE** Factory Direct Retail Catalog **1-866-238-4226**

WHAT HAPPENED WITH GM AND OPEL?

09 **GENERAL MOTORS AND OPEL** were no short fling. GM purchased 80 percent of Opel in 1929, acquiring all of it in 1931. The Germans played a pivotal role in designing global best sellers such as the 1970s rear-wheel-drive T-body (Chevy Chevette) and the 1980s J-body (Chevy Cavalier, Pontiac Sunbird, Buick Skyhawk, Caddy Cimarron, etc.); much of Buick's current lineup was designed by Opel in Germany.

Yet Opel's fortunes have long been nosing down. In the 1960s and '70s, Opel enjoyed a market share of over 20 percent in Germany, and, throughout the 1980s, it hovered around 15 to 18 percent. Then it fell hard and fast, bottoming out at less than 7 percent in 2012. It has rarely climbed above that point since.

Opel's woeful sales performance was reflected in the financials. The company has taken a loss nearly every year for two decades. Management was typically quick to find culprits, Brexit being the latest. But the actual reason is a product portfolio that has long lagged behind its chief rival, Volkswagen, in variety and quality.

Right now, cutting losses is the order of the day at GM, and Opel's European works council and labor union did themselves no favors by habitually blaming the Americans for poor quality and for pushing the wrong products. The accusations have some merit though; with a flurry of CEOs rotating through GM's system, Opel never had a chance to develop or implement a long-term plan similar to what Ferdinand Piëch executed at VW. On the other hand, GM did try to aid Opel's fight for relevance, going as far as to cancel most of Chevrolet's European operations, eliminating an in-house competitor but stranding Cadillac without an established feeder brand in Europe.

Left to right: GM CEO Mary Barra, relieved; PSA chairman Carlos Tavares, panicking; Opel CEO Karl-Thomas Neumann, now unemployed.

When GM was ready to sell Opel in early 2017, the PSA Group, which includes Citroën and Peugeot, stood ready. Opel and the French have an established history of cooperation. There is a case to be made for joint procurement, R&D, and production sites. And with their combined sales of 3 million annually, Opel-PSA conveniently moves into the No. 2 spot in Europe, behind VW and easily ahead of Renault-Nissan. Shedding Opel made sense for GM, but the separation is probably also Opel's last, best chance.

10) WHO WILL BE THE LAST TO OFFER:

A MANUAL TRANSMISSION?				
MAZDA 1:2	**CHEVROLET 2:1**	**DODGE 4:1**	**FREIGHTLINER 5:1**	**PORSCHE 7:1**
A NATURALLY ASPIRATED V-8?				
CHEVROLET 1:1	**DODGE 2:1**	**FORD 4:1**	**HYUNDAI 7:1**	**LEXUS 12:1**
A NONHYBRID VEHICLE OF ANY TYPE?				
CHRYSLER 2:1	**DODGE 4:1**	**LAMBORGHINI 5:1**	**MASERATI 9:1**	**FIAT 500:1**
AN ENGINE THAT STILL BURNS DIRTY FUEL INTERNALLY?				
VOLKSWAGEN 1:1	**RAM 1.5:1**	**JEEP 5:1**	**MERCEDES 9:1**	**BMW 15:1**
A VEHICLE THAT IS CAPABLE OF CRASHING?				
VOLVO 1:1	**TESLA 2:1**	**NASCAR 3:1**	**RIMAC 4:1**	**FORD 5:1**
A STEERING WHEEL?				
FERRARI 2:1	**LAMBORGHINI 3:1**	**MAZDA 4:1**	**PORSCHE 7:1**	**BUICK 15:1**
ANY TYPE OF BRAKE PEDAL/SWITCH/VERBAL COMMAND?				
TOYOTA 1:1	**LEXUS 2:1**	**AUDI 4:1**	**CHRYSLER 7:1**	**KIA 10:1**
WINDOWS, RATHER THAN AUGMENTED-REALITY DISPLAYS?				
FIAT 1:1	**JEEP 2:1**	**MITSUBISHI 3:1**	**LINCOLN 7:1**	**GMC 15:1**
A DECEPTICON MAGNANIMOUS ENOUGH TO OFFER ONE LAST CHANCE TO BEG FOR YOUR LIFE, PIPSQUEAK HUMAN?				
TESLA 1:1	**LEXUS 2:1**	**AUDI 4:1**	**CADILLAC 7:1**	**ACURA 10:1**

How much more powerful can cars get before the government clamps down?

11 Lots, if history is any indication. For reasons beyond our ken but that are nonetheless welcome, the feds have never shown much interest in directly limiting the tire-shredding power we citizens have underfoot. What forced the muscle cars of the 1960s underground wasn't a government-orchestrated assault on horsepower, but rather an unfortunate confluence of events: insurance companies raising rates on high-performance iron, early emissions regulations that strangled engines, and the first OPEC oil crisis, which caused a flight to more efficient cars. Washington isn't out to clamp down on today's euphoric horsepower boom, either. What threatens outputs are future fuel-economy standards that, if instituted in their currently proposed form, could prove severe enough to wipe out a large swath of today's mega-motor vehicles. But as Tesla has shown, that's where powerful EVs come in. Man will always crave speed, whether it comes from electrons or hydrocarbons. And the government is inclined to let us have it in whatever dose we desire.

TOP PHOTO BY JULIEN DE ROSA/IP3/GETTY IMAGES

The all-new 2018 Subaru Crosstrek. The forecast is for safe and sound, with road-gripping Symmetrical All-Wheel Drive + 33 mpg*. Crosstrek also keeps you connected to conditions along the way with updated SUBARU STARLINK™ Multimedia with Apple CarPlay™ and Android™ Auto integration.

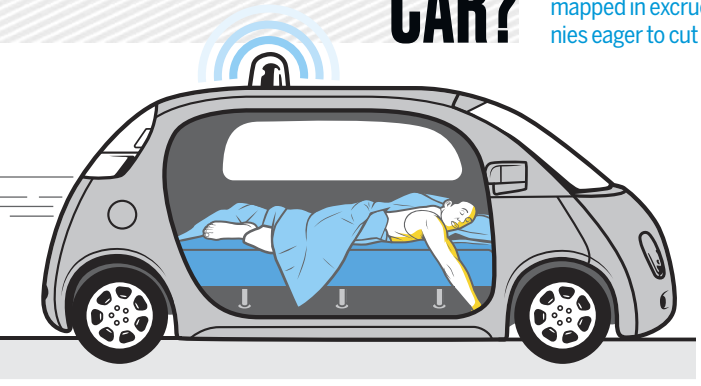
SUBARU

Confidence in Motion

Crosstrek. Well-equipped at $21,795†.

Subaru and Crosstrek are registered trademarks. *EPA-estimated highway fuel economy for 2018 Subaru Crosstrek CVT models. Actual mileage may vary. †MSRP excludes destination and delivery charges, tax, title, and registration fees. Retailer sets actual price. Certain equipment may be required in specific states, which can modify your MSRP. See your retailer for details. 2018 Subaru Crosstrek 2.0i Limited shown has an MSRP of $26,295.

WHEN WILL I BE ABLE TO BUY AN AUTONOMOUS CAR?



12 Automakers define "autonomy" according to a scale established by SAE International (formerly the Society of Automotive Engineers). The scale tops out with control-free pods at Level 5, but even adaptive cruise control counts as Level 1.

What most people think of as full autonomy begins with Level 4, in which a car can handle the complete driving task without needing to defer to a human driver—in certain cases. Think of a car that can drive on the highway but may need a human to take over at the exit, or one that can navigate metropolitan areas that have been 3-D mapped in excruciating detail—and at enormous cost—by companies eager to cut their overhead by eliminating human drivers.

Leading innovators at two of the industry's largest and most powerful suppliers tell us they expect Level 4 autonomous vehicles to hit our roads by 2020, but only for fleet use. For the foreseeable future, the requisite technology will remain prohibitively expensive for private owners. And if you're waiting on a Google pod of your own, don't hold your breath. In even the best technophilic outlook, cars like that don't start to become widely available and affordable until 2050 or so. But our own expectation trends closer to never. Is never good for you?

Can I just Uber everywhere instead of owning a car?

13 **DESPITE AN INTERNET RIFE** with armchair analysts crunching the numbers on giving up your car, Uber still makes the most sense when you're drunk or traveling for business—or both. Ride sharing is a taxi replacer, not a car replacer.

The average retail price of a new car in 2016 was $34,449. But you don't buy a new car every year. More like every five, according to AAA, which publishes an annual analysis of driving costs including gas, maintenance, and tires, as well as depreciation, financing, insurance, and taxes.

A 2015 study showed the average ride-sharing trip with Lyft costs $12.53, and $13.36 with Uber. You have to at least go to and from work, meaning our bogey for ride-share affordability is around $26 per weekday. The most expensive vehicle in the 2016 AAA survey, an all-wheel-drive SUV like a Ford Explorer, costs $20.65 per day plus 18.1 cents per mile. The 2016 National Household Travel Survey showed Americans have an average 15.7-mile trip to work, which would add $5.68 round-trip, bringing the per-day commuting cost to $26.33. Compared with ride-sharing services, that's a wash—which is as good as a win for car ownership, as its incremental cost for additional daily trips is negligible. Of course, these numbers are based on averages, and your own use case will vary.

14) What will be the next vehicle to be imported to the U.S. from a developing nation?

The Buick Envision, plug-in Cadillac CT6, and some Volvos are already imported from China; the Mitsubishi Mirage is built in Thailand; and BMW ships X1s up from Brazil in periods of high demand (most come from Germany, though). Ford's EcoSport, new here for 2018, is built in India. After that, our next developing-nation import will be another Ford—the same Focus that was originally going to be built at a new factory in Mexico before Donald Trump claimed credit for the company's decision to cancel that plan. Now said Focus will come from China.

15) WHICH CARMAKERS HAD THE BEST RECALL-TO-SALES RATIO LAST YEAR?

Only two car companies sold more cars than they recalled in 2016: Tesla and Hyundai-Kia. It was the third straight record-setting year for recalls, with the Takata airbag scandal continuing to plague the industry.

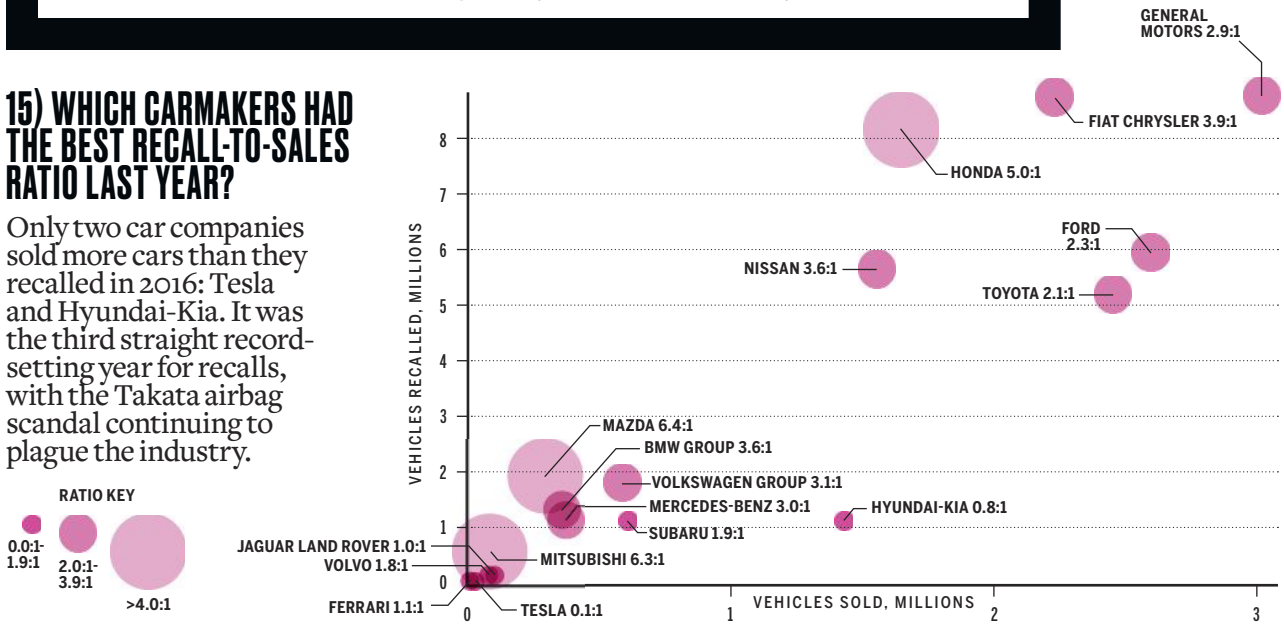


ILLUSTRATION BY T. M. DETWILER

IMSA

WeatherTech®

SPORTSCAR CHAMPIONSHIP

AUGUST 25-27

VIRGINIA INTERNATIONAL RACEWAY

EXPERIENCE ONE OF CAR AND DRIVER'S TOP ROAD COURSES:
CAR CORRALS, HOT LAPS, TEAM CHATS & TECH TALKS, ALONGSIDE 3 DAYS OF RACING

MICHELIN

GT CHALLENGE @

VIR
VIRginia International Raceway

TICKETS & INFORMATION

434.822.TIKS
VIRNOW.COM

Biscuitville GRAND PRIX

IMSA Continental TIRE SPORTSCAR CHALLENGE

PORSCHE GT3 CUP CHALLENGE USA BY YOKOHAMA

SUPER TROFEO

LAMBORGHINI SQUADRA CORSE

F4 UNITED STATES CHAMPIONSHIP

WHO IS THE FAIREST OF THEM ALL?

16 **THAT WOULD BE D.C.** attorney Kenneth R. Feinberg, corporate America's favorite mediator and alternative-dispute-resolution specialist. You might recognize his name from such PR disasters as BP's Deepwater Horizon oil spill, GM's ignition-switch debacle, or VW's diesel-cheating settlement, all situations in which Feinberg was hired to adjudicate and pay claims on behalf of those companies to large numbers of the aggrieved.

"In the conventional legal system, you choose your lawyer, I'll choose my lawyer; judge and jury will decide," says Feinberg. But what makes a Feinberg case a Feinberg case is that he's the one ultimately making the decisions regarding who qualifies for compensation and how much they get, often sidestepping what would be lengthy and complicated class-action lawsuits. "What people see as an advantage to these programs like Volkswagen, BP, and GM," he says, "is they're much speedier, much more cost-effective, and much more certain. It's the ability of the claimant [to get paid] in a much simpler, more efficient way."

Feinberg's reputation was forged in two landmark resolutions, both involving the federal government. The first was the $180 million Agent Orange settlement he negotiated in 1984 between afflicted Vietnam vets and the companies that manufactured the chemical for the U.S. Department of Defense. The second was the September 11th Victim Compensation Fund, which left it up to Feinberg to fairly distribute more than $7 billion to survivors and families of the victims of the 2001 terror attacks.

His navigation of the complex ethical, legal, and economic issues in these situations led to his appointment as the so-called pay czar for the 2009 Troubled Asset Relief Program, in which he set executive compensation at the banks and auto companies that received the largest government bailouts. Feinberg writes about the two in *Who Gets What*, his 2012 memoir: "The top *three* corporate officials at both Citigroup and Bank of America were requesting more annual compensation than the *combined* pay packages of all 25 individuals at GM or Chrysler."

Dubbed the "master of disasters," Feinberg has had a hand in the compensation programs created after many of the past two decades' worst tragedies. He was the administrator of the memorial fund established for victims of the Virginia Tech shootings in 2007 and was hired by Penn State University in 2012 to help settle claims in that institution's child sex-abuse scandal. Feinberg also was involved with funds established for victims of the 2012 movie-theater shooting in Aurora, Colorado, and the 2013 Boston Marathon bombing.

Feinberg says his success in resolving all of these highly public and emotionally fraught legal dilemmas is "directly attributable" to his stint as chief of staff for Senator Edward Kennedy in the 1970s. "He trained me in the psychology of public service," Feinberg writes in *Who Gets What*. "I learned at the foot of the master."

Feinberg's Greatest Hits

1984
AGENT ORANGE SETTLEMENT
One of three mediators appointed to help settle a class-action suit over the U.S. military's use of Agent Orange in Vietnam.

1999
ZAPRUDER FILM VALUATION
One of three arbitrators assigned to determine the fair market value of Abraham Zapruder's footage of the John F. Kennedy assassination.

2001
SEPTEMBER 11TH VICTIM COMPENSATION FUND
Developed and administered the claims and compensation program for 9/11 victims, at the behest of Congress.

2010
GULF COAST CLAIMS FACILITY
Administered the compensation program for those harmed by the Deepwater Horizon oil spill.

2014
GENERAL MOTORS COMPENSATION FUND
Oversaw the $595 million compensation program for victims of GM's faulty ignition switches.

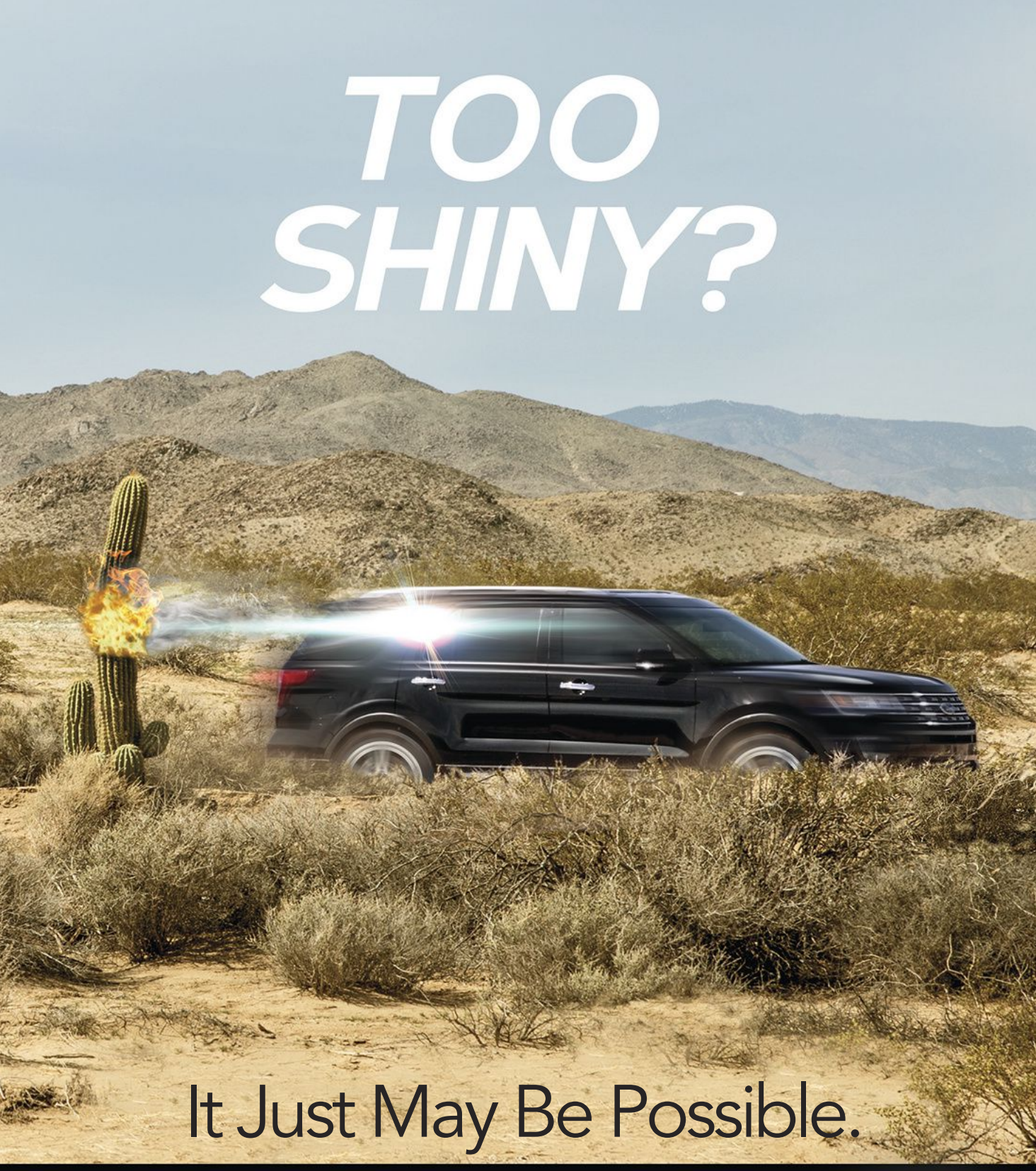
2015
VOLKSWAGEN DIESEL EMISSIONS SETTLEMENT PROGRAM
Designed and administered the claims process for VW TDI-owner compensation.

17) IS DIESEL DEAD?

On a 100-year horizon, we're all dead, and much the same is true for diesel; the long-term prospects are gloomy, but extinction will take a while. Europe has led diesel-car development because of the continent's aggressive CO_2-reduction targets (diesel cars typically produce less CO_2 per mile than a similar gas vehicle), but the next generation of targets is so tough that even diesels will struggle to deliver them, meaning a switch to hybrids and EVs is inevitable. European diesel sales peaked at 56 percent in 2011; last year, analysts AlixPartners predicted that number will drop to 9 percent by 2030, when only trucks will burn oil in the U.S.

photograph by ELI MEIR KAPLAN

TOO SHINY?



It Just May Be Possible.

Meguiar's Since 1901

ULTIMATE LIQUID & PASTE WAX

Can your car be "too shiny"? Meguiar's® Ultimate Wax's advanced synthetic polymer formula delivers incredible water beading protection, amplified reflections and so much gloss, it just might be too shiny…

(NOTE: No cacti were harmed during the filming of this advertisement)

Reflect Your Passion™

For free personal car care advice go to meguiars.com or call 800-347-5700

CAN I RUN AN EV OFF MY ROOFTOP SOLAR PANELS AND DRIVE TOTALLY OFF THE GRID?

18 **YES, BUT IT'LL COST YOU.** A Chevrolet Bolt uses 8.4 kilowatt-hours of electricity for an average round-trip commute. And according to the Energy Information Administration, the average American burns through about 30 kilowatt-hours per day on the normal stuff—lights, appliances, gadget recharging, etc.

Typical home solar panels cost anywhere from $200 to $350 each and generate about 1 kilowatt-hour per day assuming an average of four hours of sunlight. To power that typical home, plus an electric car, you would need about 40 panels, which is going to consume some 700 square feet of roof. Keep in mind that the battery backup system you'd need in order to store energy for use when the sun isn't shining would only be able to spit back about 80 percent of the original input, so it might be wise to throw in a few extra panels to be on the safe side. Call it 800 square feet. With batteries, monitors, and other accessories, you're looking at between $15,000 and $20,000, or $10,500 to $14,000 after the federal tax credit. Electricity costs vary significantly across the nation, but at the national average of 12.9 cents per kilowatt-hour, a homeowner could break even in six to eleven years.

If I'm just finishing high school and want to work in the auto industry, is it still worth getting a mechanical-engineering degree?

19 It's true, the vulgarians are at the gate. A recent study suggests that 49 percent of millennials and 44 percent of centennials want autonomous cars. Game over, right? Not at all. Chauffeur pods with no steering wheel or pedals needn't be the death of engineering. First, they'll still need powertrains, which have yet to be engineered. Second, pods may be pods, but they'll also need bodywork, a suspension, lights, HVAC systems, seats—all the stuff that mechanical engineers have created with considerable gratification for a century. Third, even if you don't want to design a pod, who's going to engineer motorcycles, ATVs, tanks, and fire engines? Or the robots that build the pods? Fourth, how long will autonomous cars be restricted to defined geographic areas? You'll probably still need the old Demon to navigate back-country hollers for a while. Fifth, American car companies are short of mechanical engineers and getting shorter as entry visas become tougher for foreigners to obtain. So, yes, it's worth becoming a mechanical engineer. Do it now.

20) IS ANYONE MAKING MEANINGFUL PROGRESS ON INDUCTIVE CHARGING?

It may be quicker to fast-charge your car by cable, but it's far more convenient to just park atop an inductive plate in your garage or at work and not fiddle with plugs. BMW and Mercedes-Benz have been working on a system that BMW will put into production in 2018. Audi's 2019 e-tron Quattro will offer inductive charging as well, and we know that all electric VWs built atop the modular electric platform will be able to fit an inductive-charging system. The technology should start to gain traction in the automotive realm by the end of the decade.

PHOTO BY ANDREW TRAHAN. ILLUSTRATIONS BY T.M. DETWILER

EXOTICS RACING®

THE ULTIMATE DRIVING EXPERIENCE

DRIVE **SUPERCARS** ON OUR **EXCLUSIVE RACETRACKS**

IN LAS VEGAS AND LOS ANGELES

MCLAREN *570S*
$399 / 5 LAPS

NEW

ACURA *NSX*
$299 / 5 LAPS

PORSCHE *991 GT3*
$299 / 5 LAPS - $1,990 / 1 DAY

NEW

PORSCHE *911 GT3 RS*
$449 / 5 LAPS

FERRARI *458 ITALIA*
$399 / 5 LAPS - $2,490 / 1 DAY

NEW

FERRARI *F12*
$499 / 5 LAPS

LAMBORGHINI *HURACÁN*
$399 / 5 LAPS - $2,490 / 1 DAY

LAMBORGHINI *AVENTADOR*
$499 / 5 LAPS

and many more.

HAPPY CUSTOMER

"What an experience! I had a fantastic day, driving several cars and doing a drift ride-along! Exotics Racing is well worth the money. Really fast cars and extremely skilled instructors who give you the right advice to get the maximum out of the car you choose to drive. I bought a three-car combo starting with the Porsche GT3, then the Ferrari 458 and finally the Lamborghini Huracán. I managed to push the Huracán to 125 mph on the straights, with a big smile on my face!"

Sebastien - from Miami, FL

50+ SUPERCARS • ARRIVE-AND-DRIVE • PRIVATE COACHING • RIDE-ALONG • DRIVING CENTER

(702) 802-5672 - EXOTICSRACING.COM

EXR RACING SERIES

2017 EXR RACING SERIES

Season two of the EXR Series is underway, and already providing action and surprises. A mix of 50 pro, amateur and master drivers have filled the fields of both the Sprint and Endurance Series from which two young talents have emerged. Henry Morse at 16 years old won five Sprint Rounds chased by 13 year-old Tomas Mejia. In the Endurance Series Chris Hill and Bill Hynes are leading for the title. Next up: Spring Mountain, Sonoma, COTA and Las Vegas.

SPRING MOUNTAIN	SONOMA	COTA	ALGARVE PORTUGAL	LAS VEGAS
DOUBLE SPRINT **1-H ENDURO** *September 15-17*	**DOUBLE SPRINT** **3.5-H ENDURO** *October 28-29*	**24-H ENDURO** *November 10-12*	**24-H ENDURO** *November 25-26*	**DOUBLE SPRINT** **2-H ENDURO** *December 9-10*

EXR SPRINT SERIES STANDINGS

1. Henry **MORSE** 312 pts ▪ **2.** David **PERISSET** 283 pts ▪ **3.** Christian **ROCHE** 259 pts
4. Thomas **MEIJA** 203 pts ▪ **5.** Bill **HYNES** 187 pts ▪ **6.** Mark **RAMSEY** 142 pts
7. Tim **CONNOLLY** 128 pts ▪ **7.** Michael **HALVERSON** 120 pts ▪ **9.** Romain **THIEVIN** 118 pts

EXR ENDURANCE SERIES STANDINGS

1. Bill **HYNES** 194 pts ▪ **2.** Christopher **HILL** 173 pts ▪ **3.** Romain **THIEVIN** 169 pts
4. Alex **PREMAT** 162 pts ▪ **5.** David **PERISSET** 156 pts ▪ **6.** Christian **ROCHE** 150 pts
7. Roger **EAGLETON** 122 pts ▪ **8.** Henry **MORSE** 113 pts ▪ **9.** Mike **HALVERSON** 98 pts

SPRINT and ENDURANCE SERIES, RACING SCHOOL and TIME ATTACK – FROM $690 / 12 LAPS

(702) 802-5644 - EXRSERIES.COM

THE ALL-NEW 2018 EQUINOX TURBO-DIESEL

CHEVROLET WILL OFFER A WIDENING ARRAY OF TURBO-DIESEL TECHNOLOGY.

Chevrolet has a history of diesel engines, starting with Silverado and Colorado trucks, and carrying on that legacy with the introduction of the 2017 Cruze Diesel. Completely redesigned, the all-new 2018 Equinox continues the story with its available ECOTEC® 1.6L Turbo-Diesel engine. The engine provides robust torque, delivering on the promise of great performance, and offers an impressive GM-estimated 40 MPG highway.[1]

FIND NEW ROADS™

MORE CHOICES.

The engine choice is yours.

Besides the available ECOTEC 1.6L Turbo-Diesel, there are two other turbocharged ECOTEC engines available in the 2018 Equinox: the standard gasoline 1.5L turbo and an available gasoline 2.0L turbo. All three are aluminum dual overhead cam engines with standard stop/start technology for improved fuel efficiency.[2] Additionally, the new Equinox is over 450 lbs. lighter overall than the previous generation, helping to make every drive a more efficient one.

MORE EFFICIENCY.

Why turbo-diesels can be more energy efficient.

When there's a need for efficiency, turbo-diesels are an attractive option. Diesel fuel is more energy dense than gasoline and burns extremely lean. A high compression ratio of 16.0:1 provides the heat that the diesel needs for auto ignition. All of this helps with engine efficiency, enabling Equinox to offer a GM-estimated 40 MPG highway,[1] which is expected to be best-in-class highway fuel economy.

MORE TORQUE.

Engineered for responsive performance.

Torque is what you feel when you step on the accelerator pedal. The Equinox 1.6L Turbo-Diesel engine provides loads of low-end torque with a healthy peak of 240 lb.-ft. at only 2000 rpm. An incredible 90 percent of that torque is available between 1500 and 3250 rpm for great responsiveness at most operating speeds, making Equinox exceptionally fun to drive.

ADVANCED TECHNOLOGIES HELP MAKE EVERY RIDE EFFICIENT

- Intake Manifold with Variable Swirl
- Advanced Combustion System
- Variable Geometry Turbocharger
- Aluminum Block & Bedplate
- Ceramic Glow Plugs
- Solenoid Fuel Injection
- High-efficiency Exhaust Gas Recirculation
- Timing System on Rear of Engine
- Close-coupled Diesel Particulate Filter (DPF) & Selective Catalytic Reduction (SCR)
- Variable Displacement Oil Pump & Piston Cooling Jets

EMISSIONS | DURABILITY | NOISE & VIBRATION REDUCTION | FUEL EFFICIENCY | LIGHTWEIGHT | PERFORMANCE

AVAILABLE CHEVROLET TURBO-DIESEL LINEUP

Vehicle	*Key Benefit*
'18 Equinox 1.6L	**GM-EST. 40 MPG HWY**[1] with 240 lb.-ft. of torque
'18 Cruze Hatch 1.6L	**240 LB.-FT. OF TORQUE** with 47.2 cu. ft. of cargo space[3]
'17 Cruze Sedan 1.6L	**52 MPG HWY**[4] with up to 702 hwy mile range[5] on a single tank
'17 Colorado 2.8L[6]	**30 MPG HWY**[7] with 369 lb.-ft. of torque
'17 Silverado 3500HD 6.6L V8	**23,300 LBS. TOWING**[8] with 910 lb.-ft. of torque

QUIET OPERATION.

What makes Chevrolet diesels different from traditional diesels?

GM puts intense work into all of its diesel engines' fuel and combustion systems to help mitigate the source of diesel noise. GM leverages advanced simulation and modeling techniques to provide an optimum design for low noise as well as performance and efficiency. Result: The 1.6L Turbo-Diesel is up to 68 percent quieter[9] than the 2.0L Turbo-Diesel, which was offered on the previous-generation Cruze.

1 Official EPA estimates not yet available. Fuel economy estimate based on GM testing. Estimated to offer 40 MPG highway for 1.6L diesel FWD models. 2 EPA-estimated 26 MPG city for 1.5L FWD models, 24 MPG city for 1.5L AWD models, 22 MPG city for 2.0L FWD models, and 22 MPG city for 2.0L AWD models. GM-estimated 28 MPG city for 1.6L Turbo-Diesel FWD models and 27 MPG city for 1.6L Turbo-Diesel AWD models. 3 Cargo and load capacity limited by weight and distribution. 4 EPA-estimated 30 MPG city/52 highway for Cruze Sedan with available diesel engine and 6-speed manual transmission. 5 Based on EPA highway estimate and fuel tank capacity. Your range may be less. 6 Excludes ZR2 model. EPA-estimated 22 MPG city/30 highway for Colorado 2WD with available diesel engine. 7 EPA ratings for Colorado 2WD with available diesel engine: 22 MPG city/30 highway. 8 Requires 3500HD Regular Cab 4x4 DRW with available Duramax 6.6L Turbo-Diesel V8 engine. Before you buy a vehicle or use it for trailering, carefully review the Trailering section of the Owner's Manual. The weight of passengers, cargo and options or accessories may reduce the amount you can tow. 9 Sound power level measured at 4000 rpm.

CHEVROLET

It's possible I belong to a car club. Well, maybe. The club has no name besides "Thursday Nights in Lolo," and here is its constitution: "Article 1, Section 1: Drink beer and talk about cars on Thursday nights." There is no

Article 2. I believe there's one amendment, though: "Bring beer, not Old Milwaukee."

We meet in the garage of Gary Meuchel, who restores muscle cars, heavy on the Mustangs. His garage is appealing because, first, it stinks of fresh paint and stale Castrol. Second, it always looks as if it might have been a Jegs outlet that's recently been bombed.

Our man Gary is dogged, so when he learned via rumors that a nearby wealthy collector owned nearly 100 cars, he begged for a viewing on behalf of the club and all that we hold dear in fine pale ales. Alas, in the matter of sidestepping minor celebrity, the owner was perhaps just a tad less available than a confessional before Easter.

Gary worked on this project for two years. Two years, I say. Then, suddenly, one of the collection's full-time mechanics called to say, "Tomorrow, 9:00 a.m., don't be late," and hung up. I live two hours from the collection and also promised to pick up Gary, which meant—for the first time since moving to Montana—I saw what Big Sky Country looks like at six in the morning.

Eight club members showed up, all looking slightly damaged. Our guide—he said his name was "Steve," but he might have been obfuscating—picked through a ball of keys the size of a small porcupine, opened an unmarked steel door, and led us down two flights of stairs. At the bottom, Steve hit the lights. There before us shimmered a world's fair of cars that would not, in nature, ever be parked next to one another.

The first car I came upon was the one-of-a-kind Gordon Diamond, powered by a flathead Ford. It looked like a slice of steel pie. "There is a sense of fish buoyancy," as poet Marianne Moore once said of early Ford Edsel sketches. The car's turning circle is remarkably small. "Pull up next to a telephone pole, place your palm flat on the pole, and you can drive 360 degrees without ever lifting your hand," noted Steve. I asked if many people had requested that feature, but Steve had vaporized into a dark recess somewhere.

Next to the Gordon sat a black late-model sports car I'd never seen before. Ever. It turned out to be a Ferrari 575GTZ Zagato with no badges except Zagato's stylized Z. The metal body didn't resemble anything in my experience: a nose like an original Testa Rossa's; a tail like, oh, a squashed Alfa 8C's; and a pea-green quilted leather interior. A Ziggy Stardust Zagato. Steve told me that the car originally sold for $1.6 million and that only six exist in any universe known even to Neil deGrasse Tyson. Because Steve is not big on clarifications—the man could have worked for the National Security Agency—the Zagato may or may not have been parked in storage by a third-party owner. Just leave it alone.

HAVE YOU SEEN THIS CAR? IF SO, CALL ZIGGY STARDUST.

Next to Ziggy sat a turquoise 1948 Tucker, recently valued at $1.4 million. In front of the Tucker was another Tucker but in pieces. Not far from a frog-green 1981 Lambo Countach S was a 1925 Voisin Torpedo, and scattered hither and yon were a '72 Ferrari Dino, a '90 Testarossa, a '61 Corvette convertible, and a '67 Camaro convertible. And a whole lot more.

That's when He-Might-Be-Steve said, "You ready to see Building Number 2?" I may have fainted.

I'll spare you the entire repertoire, but Building No. 2 housed what must be the world's coolest collection of '50s and '60s top-of-the-line Chryslers, including a '56 De Soto with a 330-cubic-inch Hemi, previously an Indy 500 pace car. Next to that was a handmade steam locomotive that carried two persons. See what I'm saying?

And that's when Steve said, "Ready for Building Number 3?" whereupon the Weirdness Factor flailed past 10 and bent the indicator needle. Think about this: seven original Buick Rivieras, a B-17's radial engine that had survived a crash, a '64 Thunderbird convertible, a '58 Borgward station wagon, and—well, here's where my train of thought derailed—four Lockheed PV-2 Harpoons equipped with magnetic anomaly detectors so they could hunt submarines. Your average car collection rarely includes that.

I asked Steve what the secret owner drove daily. He pointed to a banal 1990 Cadillac de Ville with 15,000 miles, and then to a 1994 red Dodge Viper with 3100 miles. "When he bought this Viper," Steve mentioned, "he also bought all the new service tools from Chrysler and attended the special mechanics' course."

I wish I could tell you more. But if I did, I'd have to go live with Edward Snowden.

John Phillips

MAKE YOUR RIDE MORE REWARDING WITH INSTANT GOLD STATUS

Shell V-Power NiTRO+ Premium Gasoline

The official fuel of *Car and Driver*.
CAR AND DRIVER

Join the Fuel Rewards® program to get Instant Gold Status and save on every fill, every day. With Gold Status, Fuel Rewards members save at least 5¢ per gallon on all fuel grades including Shell Regular, Plus, Diesel, and Shell V-Power NiTRO+ premium gasoline.

JOIN NOW at fuelrewards.com/gold

*Restrictions apply. To qualify for the Gold/Silver Status offers, you must be a Fuel Rewards® member and swipe your Fuel Rewards® card or enter your Alt ID when you fuel at a participating Shell station. With Gold Status, you will receive 5¢/gal in Fuel Rewards® savings on every fill-up. The 5¢/gal reward for Gold Status will be combined with other rewards in your Fuel Rewards® account. If you are an existing Fuel Rewards® member, you will receive Gold Status from 6/5/2017 through 12/31/17, the "Existing Member Introductory Period". If you are a new Fuel Rewards® member, you will receive Gold Status for the initial month you join through the last day of the month, 6 full calendar months later, the "New Member Introductory Period". The last 3 months of the Existing Member Introductory Period or the New Member Introductory Period (collectively the "Introductory Period") is the "Qualification Period". You will retain your Gold Status during the Qualification Period, but you must make 6 qualifying fuel purchases to qualify for Gold Status for the next 3 months, the "Benefit Period". During the Benefit Period, you must continue to make 6 qualifying fuel purchases to maintain your Gold Status for the next 3-month Benefit Period. A qualifying fuel purchase is any fuel purchase at a participating Shell station in which you swipe your Fuel Rewards® card or enter your Alt ID and fill up with at least 5-gallons of any grade of fuel. For example, if you are a new Fuel Rewards® member and register on 6/15/2017, you will receive Gold Status through the New Member Introductory Period (i.e., 12/31/2017). You will need to fill up with at least 5 gallons of fuel at least 6 times during the Qualification Period (i.e., 10/1/2017 and 12/31/2017) to maintain Gold Status during the Benefit Period (i.e., from 1/1/2018 to 3/31/2018). Thereafter, if you continue to fill up with at least 5 gallons of fuel at least 6 times during the successive 3 consecutive month Benefit Periods, you will retain your Gold Status. If you do not maintain your Gold Status, you will receive Silver Status. With Silver Status, you will receive 3¢/gal in Fuel Rewards® savings. The 3¢/gal reward for Silver Status will be combined with other rewards in your Fuel Rewards® account. Redeem Fuel Rewards® savings with your Fuel Rewards® card or Alt ID at participating Shell stations. Fuel Rewards® savings are limited to 20 gallons of fuel per purchase, per vehicle, or fraud limits placed by Shell and/or limits placed on your financial card by your financial institution, each of which may be lower. Fuel Rewards® savings must be redeemed in a single transaction. Once you begin to dispense fuel using your Fuel Rewards® savings, you must dispense to the 20-gallon limit or you forfeit any remaining discounted gallons of fuel. For example, if you only pump fifteen (15) gallons of fuel, you would abandon the remaining five (5) gallons of discounted fuel. If you have a rewards balance greater than the current per-gallon price of fuel, the price will roll down to the maximum capability of the fuel equipment, and your remaining rewards will be saved for a future fuel purchase. Dispenser may require a price of up to 10.9¢/gal. It may not be possible to combine multiple discounts and/or rewards in a single transaction. For purchases of $75 or more, please go inside to pay. Unbranded diesel and alternative fuels may not be eligible. The Fuel Rewards® program is owned and operated by Excentus Corporation. Offer may be modified or discontinued at any time without notice. Not valid where prohibited by law. Please see fuelrewards.com for complete Fuel Rewards® program details and Terms and Conditions. Other restrictions may apply. All trademarks are the property of their respective owners. To learn more, visit fuelrewards.com/gold or call (888) 603-0473.

My friend John Lacey's lovely little 1967 Lotus Elan was burning gas beautifully right up until it wasn't. At the notoriously clogged interchange of L.A.'s 405 and 101 freeways, which actually has its own Yelp rating

(amazingly, 2.5 stars), the purring little blue-bonneted four-cylinder went "*brrrrr-dup!*" and the tach needle fell limp. We managed to coast up the very off-ramp we were heading for on our way to the annual Queen's English car show in Van Nuys and then downhill into a fuel plaza offering blessed shade. I was optimistic. In my experience, which includes two cantankerous Lamborghini Espadas, the more sudden and calamitous the failure, the easier it is to fix. And it wasn't as if we'd thrown a rod; the engine just went "*dup!*" The tank had vacuum-locked, a wire had fallen off—something would be obvious and easily fixed with a car key, which, after a brief search of the Elan's teensy trunk, proved to be the only tool on hand.

Well, it wasn't obvious. The coil or the condenser had failed, or possibly the foot of the points that follows the distributor cam had worn down. Either way, with the distributor buried under the intake manifold as a byproduct of the Ford-Lotus shotgun marriage that is the Elan's engine, we capitulated and called for a tow. "Lotus—Lots of Trouble, Usually Serious," noted our friend Mitch Clements, who had purred over in his Jag XK-E to lend a hand. I felt a bit guilty, since I had talked John into taking the Elan, which had been napping for far too long in the hangar under the airplane wing.

I started my long, as-yet-unfinished education about cars in the fifth grade in an almost identical Elan belonging to my oldest friend's English stepdad, who used to take us to club races at Michigan's Waterford Hills track in it. We kids would take turns wedging into the space behind the seats: Cops didn't ticket you then for treating children as soft luggage.

So I have a fondness for that car—and Lotus in general, which itself had gone down for a bit of a nap until China's Geely purchased a controlling interest in the company this May from Lotus's owner, Proton. A couple of years ago I went to the factory at the old RAF Hethel air base with my friend Ken Evans, a native Norfolk lad who worked at Lotus for over 40 years and has some Colin Chapman tales best shared over pints at Kings Head in nearby Hethersett. The buildings at the former B-24 bomber field were looking a little weedy, and the naked girders of a half-built (and half-cocked) plant expansion were quietly rusting in the moldering damp of east England.

LOTS OF TROUBLE, USUALLY SERIOUS. AN OLD LOTUS KONKS OUT AS NEW LOTUS GETS A LIFELINE FROM THE CHINESE.

Ah, such a heady micromoment for Lotus that produced these wind-whistling girders. I still have the complete set of 1:64-scale model Lotus Esprits that women in leather pants handed out at the 2010 Paris show to hype a press conference in which Lotus's then-CEO Dany Bahar would unveil five new concept cars at once, including an Esprit replacement, along with a promise to produce them out of thin air and even thinner financing. The scoffing of the assembled press was audible, and sure enough, the plan, which was more about quickly sprucing up Lotus's image for a sale, died in its infancy. Bahar was eventually fired, and his and Lotus's lawyers went after each other.

In light of McLaren's meteoric rise, Lotus's fate seems particularly bitter. With the right set of heads on the job, something like the stunning McLaren 570S or 720S could have borne the yellow-and-green Anthony Colin Bruce Chapman badge. After all, Bruce McLaren was just some unknown Auckland sprig with a limp and big dreams when Chapman built his first car. Hethel handily beats Woking in a heritage match. However, before you chalk up Chinese ownership as yet another sad twist to the story, consider that Geely has shown a fairly deft touch in managing its other Western brand, Volvo. It has let the native talent flourish and build cars that are, love 'em or not, innately Volvo. And Chinese ownership comes with an inside line to the world's largest car market.

Perhaps the best fate for Lotus would have been to be absorbed by Volkswagen Group, there to tap a rich pipeline of money and technology. But post-dieselgate VW is in a huddle, and its stable is already full of hungry thoroughbreds. Thus, Geely may be the next best knight on a white stallion, and there are great opportunities for synergy. One of Volvo's nagging problems (as well as China's in general) is mediocre dynamics. This just happens to be a Lotus specialty. Saving Lotus will take years, but at least someone has taken the first step. As of this writing, I hate to admit, that's more than we can say about John's Elan.

Aaron Robinson

Proven Leaders.

Team Players.

Future Colleagues.

RESUME ENGINE

The right team can take a business to the next level.

The experience veterans gain in the military makes them ideal employees in the civilan workforce. Resume Engine translates military experience, training, and honors into relatable job qualifications and allows recruiters to search for veteran candidates at no cost. Veterans can use this free tool to create and share a strong resume with employers nationwide.

Start searching for your next team member today.

ResumeEngine.org

HIRING OUR HEROES®
U.S. CHAMBER OF COMMERCE FOUNDATION

TOYOTA
Let's Go Places

If you've ever watched VH1's *Behind the Music*, you know that there's a story behind every album. I mean, Mötley Crüe didn't create a head-banging juggernaut like *Dr. Feelgood* in a vacuum, people. This magazine, similar to the Crüe

in so many ways, also has stories behind the, um, stories. And I'm not just talking about Phillips's solo rap career. As a prelude to "Whatcha Gonna Do When They Come for You?" [see page 126], I spent a few days with both the Dodge Charger Pursuit and the Ferrari 488GTB, giving me some contemporaneous experience with life on the far ends of the automotive public-affection spectrum.

I thought the cop car would be fun. I thought people would get a kick out of it. But it turns out that a black Charger with a light bar just makes everyone nervous. It even made me uneasy. I constantly felt the need to explain myself, possibly because I was constantly asked to explain myself. When I stop at a rural gas station, the clerk nervously asks, "What's going on out there?" It occurs to me that the local cops probably have their own pumps, so they don't stop at the gas station unless there's trouble. I assure her that nothing's wrong. It's just a Charger Pursuit with a light bar and spotlights and no rear interior door handles. I'm sure I come off exactly like a cop who's trying not to act like a cop.

And you'd think you could get where you're going extra quickly in a cop car, but it's actually the opposite. Everyone gets so wigged out when they see Darth Charger that they slow way down, turning you into the grand marshal of a never-ending parade. On that front, I have one major piece of advice for the motoring public: Don't act guilty. Because when a cop rolls up behind you in a 35-mph zone and you immediately slow to 27 mph, that does not tell him that you're a conscientious driver. It tells him that there's something in your pocket that you're suddenly very nervous about. Whatever that thing is—a stolen derringer, half-empty nips of homemade Fireball, tropical frogs—he's now certain it's there. Just drive 5 mph over the limit and you won't even be noticed. Stay cool, man, is what I'm saying.

In contrast, let's talk about the Ferrari 488GTB. Everybody loves a red Ferrari. And I'm happy to spread the joy. By which I mean, show off and act rich.

Some people are quietly reverent. A kid in a Mazda B2000 follows me to my driveway, then shyly asks if it's okay to take a photo. "I've got an album of cool cars I've spotted in town," he says, "but I've never seen a Ferrari." I tell him to go ahead, which is very gracious of me. Later that day, I look out the window and see the cable-repair truck outside. Is the internet down? No, the cable guy just wants to check out the car. "I was driving past and thought it was a 458," he says. "But then I noticed that hard edge on the side and realized it's a 488." People in North Carolina know their cars.

In the Charger, you're shunned. In the Ferrari, you're the most popular guy in town. A man at the gym walks up and asks me to be on his podcast. "It's about interesting stories," he says. "And I figure that if you're driving a car like that, there must be an interesting story." I mentally prepare my go-to explanation for why I possess the keys to an exotic car, which is that I'm the guy who invented that fake grass that goes between pieces of sushi.

One day, a neighbor stops to eye the car. Turns out he used to have a Viper. He's also a pilot and a photographer. I take him for a ride, and a couple of weeks later the UPS guy drops off an aerial photo of our town, sent as thanks for the 488 experience. The Ferrari goodwill continues even after the car is gone.

On it goes. A guy who works for an outfit that cleans keg lines follows me into a parking lot. He mutters profane oaths under his breath while circling the car. "How am I gonna go back to my Prelude?" he asks. I tell him Preludes are pretty awesome but, despite my best efforts, it still comes out as condescending. I drive past a lemonade stand, then turn around and go back. The kids are thrilled to see a Ferrari, and I'm thrilled that they're thrilled, by which I mean I relish yet another opportunity to bask in unearned adulation. Here is this beautiful object that I had absolutely no part in creating and I get to take credit for it. What could be better than that?

There's only one person who prefers the Pursuit to the Ferrari. One morning, I'm scheduled to bring my mother to a doctor's appointment, so I call her and ask, "Do you want to ride in a Ferrari or a cop car?" With no hesitation, she says: "Oh, the cop car. I've never ridden in a cop car." I have, but that's a story for another episode.

THE 488'S REDLINE IS 1000 RPM LOWER THAN THE 458'S. SOMEHOW THE KIDS AT THE LEMONADE STAND STILL LIKE IT.

Ezra Dyer

THAT BOSS

WON'T PAY FOR ITSELF.

Switch to GEICO and save money for the things you love.

Maybe it's maintaining that vintage classic you own. Or the lease on the new one. Cars are what you love – and they don't come cheap. So switch to GEICO, because you could save 15% or more on car insurance. And that would help make the things you love that much easier to get.

GEICO®

Auto • Home • Rent • Cycle • Boat

geico.com | 1-800-947-AUTO (2886) | local office

Some discounts, coverages, payment plans and features are not available in all states or all GEICO companies. Homeowners and renters coverages are written through non-affiliated insurance companies and are secured through the GEICO Insurance Agency, Inc. Boat and PWC coverages are underwritten by GEICO Marine Insurance Company. Motorcycle and ATV coverages are underwritten by GEICO Indemnity Company. GEICO is a registered service mark of Government Employees Insurance Company, Washington, D.C. 20076; a Berkshire Hathaway Inc. subsidiary. © 2017 GEICO

Jeep®

UPSCALE ADVENTURE REQUIRES

UPGRADED TECHNOLOGY

YOUR ALL NEW COMPASS

ADVANCED TECHNOLOGY PREPARES YOU FOR LIFE'S RECALCULATIONS

- Award-winning Uconnect® system with largest-in-class available 8.4-in hi-res touchscreen.
- Highest level of available active safety and security technologies in its class — over 70 in total.
- Over 150 SiriusXM® commercial-free channels including a five-year subscription to real-time travel and traffic services.

©2017 FCA US LLC. All Rights Reserved. Jeep is a registered trademark of FCA US LLC.
Class based on FCA compact SUV Segmentation. Based on 2017MY Product Plan.

Ya say the run is done? That the car market can't take another record year? That's crazy! Come on in to the home of the crazy-good information, where our middle name is crazy (and also "and"). We've got everything you need, friend! You want a spunky little number for Billy? A classy car for mom? We got 'em all right here . . .

photograph by SEAN C. RICE, *typography by* NATHAN YODER

The List

Details of each brand's 2018 model-year lineup begin here and run through all the drives and tests in this section. Significant changes merit their own entries; minor trim updates, unchanged models, and discontinued vehicles are noted at the end of each brand's rundown. And don't be surprised if you find some upcoming 2019 models in here, too—we uncovered a lot of long-range information in our reporting. Begin nerding out now:

Enter
ACURA – AUDI
▷

Acura

RLX/RLX hybrid: Acura won't confirm the rumors of a refresh for its biggest sedan, though we expect to see the brand's "diamond pentagon" grille on a new front end and a nip and tuck to the rear. A sporty A-Spec variant, similar to the TLX's [see below], might happen.

—

TLX: Refreshed with new fascias and an updated but still two-screen infotainment interface, the TLX also gets an A-Spec model with black exterior trim, wider tires, and retuned dampers. A-Spec interiors sport well-bolstered front seats trimmed in black leather with Alcantara inserts or, for a slightly louder look, in red leather. The TLX uses carryover engines: a standard 206-hp 2.4-liter inline-four and an optional 290-hp V-6. All-wheel drive is available on V-6 models, including the A-Spec.

—

Minor trim changes: MDX/MDX hybrid
Unchanged: ILX, NSX, RDX

Alfa Romeo

Stelvio: *see first drive of the turbocharged 2.0-liter inline-four, page 042*
If you harbor an Italian love of speed and an American predilection for sitting on a stack of phone books, the 505-hp Stelvio Quadrifoglio has you covered: 60 mph in less than four seconds and a claimed top speed of 177 mph. All-wheel drive is standard while a torque-vectoring rear diff lends credibility to the notion of naming a crossover after a mountain road with 48 hairpin turns. Sparco carbon-fiber-shell seats and Brembo carbon ceramics are available for those who don't know when enough is enough.

—

Minor trim changes: Giulia
Unchanged: 4C/Spider

Aston Martin

DB11: *see first test of the 12-cylinder model, page 046*
New last year, the V-12–powered DB11 will be joined this fall by a V-8 version with 503 horsepower from its AMG-derived twin-turbo 4.0-liter. Aston quotes a zero-to-60 time of 4.0 seconds, a tenth behind what it claims for the V-12. Prices for the V-8 model will start just above $200,000, the V-12 at $219,320. A convertible version, or "Volante" in Aston-speak, is also on its way. At least initially, the DB11 Volante will only be available with the V-8; we expect the droptop to start at about $215,000.

—

RapidE: Aston promises a pure electric version of the Rapide sedan sometime next year. It's dubbed RapidE, and early and unlikely talk has it delivering around 1000 horses. More details, such as range and power, are expected by the end of the year.

—

Vanquish S: Introduced earlier this year, the 2018 Vanquish S is available as a coupe or Volante and features Aston's naturally aspirated 6.0-liter V-12 making 580 horsepower. Chassis changes include new damper valving, spring rates, and anti-roll-bar bushings. Exterior changes include a carbon-fiber diffuser and front splitter.

—

Vantage: The current Vantage lineup will not survive into 2018, but Aston assures us that an all-new Vantage will replace it. Expect it to be powered by a version of the AMG-sourced twin-turbo V-8 going into the DB11 and to ride on that car's new architecture. A V-12–powered version may follow. When the new Vantage arrives, it will continue to be the least expensive Aston Martin, with a starting price in the neighborhood of $125,000.

—

Minor trim changes: Rapide S

Audi

A4/S4: Introduced late last year, the Allroad wagon rolls on the A4's new platform. Only one driveline configuration is available: the 252-hp, turbo 2.0-liter inline-four, a seven-speed dual-clutch automatic, and an on-demand all-wheel-drive system. Back after a one-year hiatus, the S4 now packs a 354-hp, turbocharged 3.0-liter V-6 and conventional eight-speed automatic. No manual transmission is available, since many of the car's active-safety systems don't play nice with the stick, and Audi tossed the last-gen's lightning-quick dual-clutch auto because Americans are cuckoo for pudding-smooth stoplight launches. With the eight-speed, the S4 sees a commensurate uptick in civility and decline in personality but remains an incredibly capable car.

—

A5/S5: The A5 and S5 coupes and convertibles are new for 2018, and they're now joined by an additional body style: the practical two-box Sportback *[see first drive, page 048].* A5 models use a 252-hp, turbocharged 2.0-liter inline-four, while S5 versions get a 354-hp, turbocharged 3.0-liter V-6. Both engines drive all four wheels, the former through a seven-speed dual-clutch automatic and the latter through an eight-speed torque-converter automatic.

—

A6: One year ahead of a full redesign for the A6, most of what was baked into last year's standalone Competition model becomes an option package for the A6 3.0T, including special wheels, a torque-vectoring rear diff, and a stiffer suspension. The Compe-

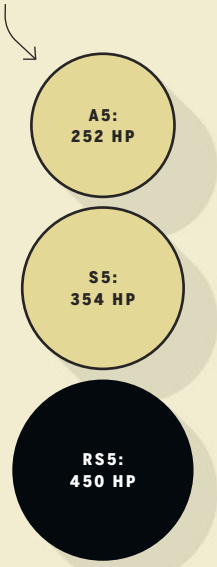
Aston Martin Vanquish S & Audi Q8 Sport concept ▽

Acura TLX ▽

STEPPIN' UP ▽

High Fives

Each step up the Audi coupe's performance ladder brings roughly 100 additional horses.



tition's 340-hp tune for the supercharged V-6 becomes standard for all six-cylinder cars, which previously had 333 horses.

—

A8: These executive expresses don't have much going for the 2018 model year—some driver-assistance tech and options packages are now more widely available—but a fresh A8 is due next year featuring Level 3 autonomy and a 48-volt electrical architecture that will bring light hybrid functionality to enable, among other things, the ability to shut off the engine when coasting between 34 and 99 mph. The next A8 also will be able to use its cameras and sensors to intelligently deploy its engine stop-start system based on traffic conditions.

—

Q5/SQ5: Audi redesigned these small crossovers for the first time, although, as with most recent Audi models, you'd be hard pressed to tell at a glance. Power in the Q5 is up 32 horses, to 252, from its turbocharged 2.0-liter inline-four, while the SQ5 again makes 354 horses, this time from a turbocharged V-6. The standard model moves closer to the bread-and-butter mainstream with inoffensive dynamics and a focus on fuel efficiency, including a Quattro with Ultra all-wheel-drive system that is capable of fully decoupling the rear axle. The SQ5 can be equipped with all manner of sporty hardware, such as a torque-vectoring rear differential and adjustable air springs but remains more of a hit man in the shadows than a back-road bruiser like its corporate cousin, the Porsche Macan.

Q8: If you've ever said, "I'd like the Audi Q7 more if it had less of an ass, a crazier grille, and maybe cost more," allow us to introduce you to the Q8. When it goes on sale next year, this C(oupe)UV version of the Q7 will feature a sleek roofline, less cargo room, and a face like a villainous robot. Sitting on the VW Group's MLB Evo architecture, the Q8 will offer V-6 and V-8 engines and possibly a hybrid powertrain as well as a 500-plus-hp V-8 in an RS model. The Q8 also will help usher in the latest version of Audi's MMI infotainment system, which ditches its central knob and is controlled almost entirely via multiple touchscreens.

—

RS3: We've finally been deemed worthy of Audi's hottest little hatchback, albeit not in hatchback form. Rather than a two-box, the all-wheel-drive RS3 storms onto American shores as a sedan, its turbocharged 2.5-liter inline-five whipping up 400 horsepower and one hell of a righteous racket. Yet for all its power, muscled-up chassis, available carbon-ceramic front brake discs, and optional reverse-staggered tires—yep, they're wider up front than out back—it's a livable daily driver, a car capable of commuting without a fuss. Prepare to pay dearly for the privilege, however, as the RS3 starts at more than $55K before you even add any optional goodies.

—

RS5: The A5 fully weaponized, the RS5 will be available in both coupe and Sportback body styles. Either way, it has a twin-turbo 2.9-liter V-6 making a honkin' 450 horsepower and 443 pound-feet of torque sent to all four wheels—there's "quattro" lettering on the grille surround to reinforce the point—via an eight-speed torque-converter automatic. Audi says the coupe will rocket to 60 mph in 3.9 seconds, and all versions have the same widened fenders, Virtual Cockpit instrumentation, and massive front intakes.

—

TT RS: You want a less practical RS3? Allow us to direct you to the TT RS, powered by the same 400-hp, turbocharged 2.5-liter inline-five. It'll set you back $65,875 or more.

—

Minor Trim Changes: A3/S3, A7/RS7/S7, Q3, R8, TT/TTS

Unchanged: Q7, S6, S8

▽ Audi RS5

Euro Thrash

CAN THE STELVIO BE A BETTER CROSSOVER WITHOUT FIRST BEING A BETTER ALFA ROMEO? _by Eric Tingwall

▽

TENNESSEE'S CENTRAL BASIN resembles the Italian Alps the same way Kevin Bacon looks like actual bacon. But the Alfa Romeo Stelvio—named after the archetypal mountain pass in Italy—nevertheless transported us to a European motoring mecca during our drive through the Volunteer State. Running southwest out of Nashville, the 444-mile Natchez Trace Parkway cuts a narrow squiggle through a verdant forest and conjures a Dixie Nürburgring. The way the manicured easement meets old-growth oak, the way the asphalt never runs straight, and the way a blind corner feeds another blind corner; it all evokes the holy Green Hell.

Drive around the Lycra-clad cyclists, the dawdling Toyotas, and the 40-mph speed limit of the Natchez Trace, and the Alfa Romeo Stelvio comes to life. It steers with a steady, linear effort. The brake-by-wire system responds obediently to slight pedal-pressure modulation in a marked improvement over the Giulia sedan. Sized just longer than the Audi Q5 and the Mercedes-Benz GLC, the Stelvio doesn't drive small, but there is a precision in its controls that invites you to use more road, to corner closer to the trees that crowd the driving line, and drift nearer to the drainage ditch at pavement's edge. In this segment, only a Porsche Macan inspires more confidence.

The Stelvio's dynamic virtues hold up when driven in more routine environs as well. Leaving a stoplight, this eight-speed transmission is the rare automatic that doesn't race to upshift, even with the driving-mode selector pointed at the natural setting. Beyond the buttercream-smooth Parkway, both 19- and 20-inch wheels calmly roll over imperfections.

Alfa moved just 2702 vehicles in America through May 2017, and the company's heads of state hope to strengthen the brand's pull by extending its fringe philosophy to the segment where today's buyers have clustered: mid-size crossovers.

"At Alfa Romeo, technology is more than a fancy radio and advanced driver-assistance systems. Everybody has that," says Alfa boss Reid Bigland. Everybody else also has a turbocharged 2.0-liter inline-four and all-wheel drive, which come standard here. The variable-valve-lift engine is the strongman of the class at 280 horses and 306 pound-feet of torque, yet it's also a gentleman, revving smoothly with minimal turbo lag.

The technology of which Bigland boasts: Every Stelvio carries a carbon-fiber driveshaft and enough aluminum that it should undercut the BMW X3 by almost 100 pounds. The Performance package installs a helical limited-slip differential between the rear wheels. To drive the brand message home, Alfa makes the driver thumb an engine-start button mounted on the steering wheel. In Sport, Ti Sport, and Performance-package–equipped models, massive column-mounted aluminum shift paddles block the control stalks. "You're not going to use that turn signal without first executing four flawless downshifts," they insist.

While Maserati's remakes have been assembled with some Chrysler leftovers, the Alfa Stelvio gets its own premium-feeling switchgear and a new infotainment system that is, at least for now, exclusive to the brand. The clean interior can be accented with real aluminum, wood, or carbon-fiber trim. But FCA made no attempt to hide the authenticity of a few untextured, flat-finish plastic pieces, such as the one that surrounds the imprecise electronic shifter. The coarse-grain dash top might have been pilfered from the Ford Taurus assembly plant. In the Stelvio, the abundant highs are high and the few lows are low.

You could extend that summary to the entire Alfa Romeo brand. In four separate tests, not one Giulia has escaped our scrutiny without first flashing a check-engine light, entering a limp mode, or jamming its sunroof in an open position. And while we never unpacked the code reader we carried to Nashville, the Stelvio illuminated a fault lamp for the auto stop-start system less than two miles from the end of the drive.

They can take Alfa Romeo out of Italy. They haven't taken Italy out of Alfa Romeo.

2018 Alfa Romeo Stelvio

VEHICLE TYPE: front-engine, all-wheel-drive, 5-passenger, 4-door hatchback
BASE PRICE: $42,990
ENGINE TYPE: turbocharged and intercooled SOHC 16-valve inline-4, aluminum block and head, direct fuel injection
DISPLACEMENT: 122 cu in, 1993 cc
POWER: 280 hp @ 5200 rpm
TORQUE: 306 lb-ft @ 2000 rpm
TRANSMISSION: 8-speed automatic with manual shifting mode

DIMENSIONS
WHEELBASE: 111.0 in
LENGTH: 184.6 in
WIDTH: 74.9 in
HEIGHT: 66.0 in
PASSENGER VOLUME: 89 cu ft
CARGO VOLUME: 19 cu ft
CURB WEIGHT: 4100 lb

PERFORMANCE (C/D EST)
ZERO TO 60 MPH: 5.5 sec
ZERO TO 100 MPH: 14.7 sec
1/4-MILE: 14.2 sec
TOP SPEED: 144 mph

FUEL ECONOMY
EPA COMBINED/CITY/HWY: 24/22/28 mpg

[+] If everyone is going to drive crossovers, every crossover should drive like this.
[–] Unproven reliability, premium feel is tarnished by a few spots of cheapness.

Esquire

MENS JEWELRY

THE ULTIMATE MEN'S JEWELRY COLLECTION

Designed in collaboration with the experts at Esquire, The Esquire Men's Jewelry Collection encompasses a broad range of materials and styles. Featuring the right blend of classic and contemporary, new and traditional, the expected and the exploratory, this collection delivers the extra 10% with substance and style.

Left to Right: Onyx Ring in Sterling Silver $475, Ridged Cuff Bracelet in Sterling Silver $650, Red Tiger's Eye Beaded Bracelet $400, Brown Woven Leather Bracelet $175.

AVAILABLE EXCLUSIVELY AT MACY'S AND MACYS.COM

We believe that there is no mold for invention. Introducing the G80 Sport from Genesis. An impeccably crafted balance of power and detail, with its aggressive dark-chrome crosshatched front grille, carbon-fiber-trimmed dash, and 19-inch copper accented alloy wheels artfully surrounding a 365-hp twin-turbo engine that will pin you to its copper stitched sport seats. Add in the peace of mind of our most advanced safety features and Complimentary Service Valet standard, and the only thing the G80 Sport doesn't have is limits. It's designed from the ground up the only way we know. Our way. **Genesis.com**.

Estimated horsepower based on premium fuel. Service Valet available from Authorized Genesis Retailers during complimentary maintenance period. Includes normal wear, parts replacement and warranty repairs for 3 years or 36,000 miles, whichever comes first. Coverage area varies by retailer. Charges and fees may apply. Applies to original owner/lessee only. Safety features standard on Genesis G80 and G90 models.

GENESIS

The New Classic

ASTON MARTIN'S TURNTABLE-WORTHY DB11 IS A MASTERPIECE AMONG THE MASSES. _*by Tony Quiroga*

PLACE AN ASTON MARTIN DB11 amid the SUV pods and dull sedans of today's traffic and it stands out like a Kandinsky painting at a yard sale. Sharply creased, with a low roof and tiny slits for windows, the DB11 is sinewy and taut through the midsection and bulging at the wheels. It's a car that appears to have been driven straight off an auto-show turntable and onto the freeway. And yet, when it's slicing past the dawdlers, the DB11 gives off a distinctly retro vibe.

There's a clear connection to the past in the DB11, and a lot of it has to do with the V-12 in front of the driver. Not that the 5.2-liter is old—actually, the engine is virtually all new. It's the lavishness of the thing that makes it seem pulled from a different era. The V-12 benefits from cylinder deactivation and two turbochargers. Those turbos blow into the engine's nostrils, angering it to produce 600 horsepower and 516 pound-feet of torque. Power comes on strong right off idle and there isn't a hint of turbo lag.

[+] Everything about the V-12, proof that old ideas don't have to die. [–] Not as overtly sporting as the competition, a bit noisy at speed.

While the experience of a V-12 is one that makes us nostalgic, the DB11's acceleration is wholly of the 21st century. Blitzing to 60 mph takes 3.6 seconds, and the quarter-mile passes in 11.7 at 125 mph. A Ferrari California T is quicker, but its snarling and barking V-8 seems a bit bourgeois after hearing the DB11's 12-cylinder roar.

It's a tad surprising that the DB11, at 4222 pounds, is heavier than the DB9, the car it replaces. But next to the 5000-pound Bentley Continental GT, the Aston is lithe and graceful. The DB11 is built on Aston Martin's new bonded and riveted aluminum structure that will eventually supplant the company's aging VH architecture. Bolted to that aluminum structure is an elastic suspension that never abuses the driver, even if he or she selects the firmest of the suspension's three modes. Quick-ratio steering offers real feel, with minute, tactile tugs pulsing through the wheel.

Under cornering loads, the front tires press hard into the asphalt and begin squealing as the DB11 approaches its 0.94-g limit. Unlike many modern performance cars, the DB11's suspension quivers and dances in response to hard work. Those small movements don't disturb the Aston's handling, but their presence bestows a liveliness and character that aligns the DB11 more with GTs of the past than with the arguably perfect and electronically simulated driving experience you get in, say, a Mercedes-Benz S-class coupe. The DB11's closer connection to the road shows up in our sound measurements: At 70 mph, the DB11 makes 70 decibels of mostly tire noise, a figure in line with economy cars. At wide-open throttle, 86 decibels of purr make themselves known in the cabin.

Aside from the noise levels, there's nothing inside the DB11 that is even remotely economical. Soft leather, perfectly stitched patterns on the seats and dash, and a new infotainment system borrowed from Mercedes-Benz make a strong case for the DB11's $214,820 base price.

While it isn't the quickest or the sportiest car to be had in the low-$200,000 range, the DB11 marries, in spectacular fashion, old ideas with current engineering and design. It's a charmer.

2017 Aston Martin DB11

VEHICLE TYPE: front-engine, rear-wheel-drive, 2+2-passenger, 2-door coupe
PRICE AS TESTED: $221,120
BASE PRICE: $214,820
ENGINE TYPE: twin-turbocharged and intercooled DOHC 48-valve V-12, aluminum block and heads, port fuel injection
DISPLACEMENT: 318 cu in, 5204 cc
POWER: 600 hp @ 6500 rpm
TORQUE: 516 lb-ft @ 1500 rpm
TRANSMISSION: 8-speed automatic with manual shifting mode

DIMENSIONS

WHEELBASE: 110.4 in
LENGTH: 186.6 in
WIDTH: 76.4 in
HEIGHT: 50.4 in
PASSENGER VOLUME: 77 cu ft
TRUNK VOLUME: 10 cu ft
CURB WEIGHT: 4222 lb

C/D Test Results

ZERO TO 60 MPH: 3.6 sec
ZERO TO 100 MPH: 7.8 sec
ZERO TO 150 MPH: 17.8 sec
ROLLING START, 5–60 MPH: 4.4 sec
1/4-MILE: 11.7 sec @ 125 mph
TOP SPEED: 200 mph (drag ltd, mfr's claim)
BRAKING, 70–0 MPH: 158 ft
ROADHOLDING, 300-FT-DIA SKIDPAD: 0.94 g

FUEL ECONOMY

EPA COMBINED/CITY/HWY: 17/15/21 mpg
***C/D* OBSERVED:** 17 mpg

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

photography by JAMES LIPMAN

WeatherTech®

FloorLiner™
Provides “absolute interior protection™”
Laser measured to perfectly fit your vehicle
Has channels to carry fluids and debris to a lower reservoir
Material provides soft touch top, rigid core strength and bottom surface friction

See our full line of Automotive Accessories at **WeatherTech.com**

Accessories Available for

Acura · Audi · BMW · Buick · Cadillac · Chevrolet · Chrysler · Dodge · Ferrari · Ford · GMC · Honda · Hummer · Hyundai · Infiniti · Isuzu · Jeep · Kia Land Rover · Lexus · Lincoln · Maserati · Mazda · Mercedes-Benz · Mercury · Mini · Mitsubishi · Nissan · Oldsmobile · Plymouth · Pontiac · Porsche Saab · Saturn · Scion · Subaru · Suzuki · Toyota · Volkswagen · Volvo

Order Now: 800-441-6287

American Customers WeatherTech.com

Canadian Customers WeatherTech.ca

European Customers WeatherTech.eu

© 2017 by MacNeil IP LLC

Everything's Fine, Says the Good Old-Fashioned Sedan

. . . AS THE FLAMES FROM HOT FOUR-DOOR COUPES LIKE THE A5 SPORTBACK LICK AT ITS FEET. _by Alexander Stoklosa

WAR HAS YET TO REACH AUDI'S DOORSTEP. Unrelenting offensives from sedan alternatives—namely crossovers and coupe-ified four-doors—are leaving traditional sedans bleeding on the battlefield of consumer relevance. Yet, at Audi, A6 sales increased even after the drop-dead gorgeous swept-roof A7 went on sale. Audi hopes that this same trend-bucking phenomenon will extend to its A4 sedan as the similarly swoopy A5 Sportback reaches dealerships.

From our seats, though, the A5 Sportback looks like the battering ram in an imminent raid on A4 sales. The two Audis share chassis dimensions and components, though the Sportback is notably prettier than the A4. The lowered, gracefully arcing roof and four frameless-glass doors mimic the A7's profile, while all the sheetmetal forward of the A-pillars is lifted directly from the A5 coupe. A ride height 0.9 inch closer to Mother Earth than the A4's and deeper-offset wheels finish the red-carpet look.

Four-door hatchbacks: Just a more sensible sedan or the car world's best hope in preventing everything from becoming SUVs?

Tighter access to the rear seat is the only sacrifice the erstwhile A4 driver must make. Otherwise, the cabin is just as spacious. A standard power liftgate yawns to reveal a 22-cubic-foot cargo hold that betters the A4's by nine cubes and nearly matches the A4 Allroad wagon's 24-cubic-foot capacity. Folding the A5's rear seats opens up another A4 trunk's worth of space.

With the same 252-hp turbocharged 2.0-liter inline-four-cylinder and seven-speed automatic transmission—and virtually the same curb weight—as its sedan counterpart, the A5 Sportback should reach 60 mph in an identical 5.2 seconds. (More zip is available from the 354-hp S5 iteration, and, in a year, an RS version arrives.) We like the turbo four's bawl and the dual-clutch tranny's knife-edged shifts, though the transmission has the tendency to grab the highest available ratio in the name of efficiency—a habit that, frustratingly, can't be completely licked by engaging sport mode.

As with the A4, exploiting the car's competent but cold handling and its surfeit of mechanical grip is an exercise diluted by remote steering. The car moves with accuracy but does not engage. This is even more of a letdown here than in the sedan, given the promises made by the Sportback's shape. "Sport" is, after all, more than one-third of the car's name.

At least the Sportback rides well enough, provided you avoid the brittle sport suspension. For the smoothest ride, though, you'll need the $1000 adaptive-damping suspension, which is restricted to the top-tier Prestige trim. That setup provides expert body control in its automatic setting, while comfort mode brings more squish, and dynamic mode more starch.

Hey, it's only money, and Audi charges surprisingly little of it ($2100) to step up from an all-wheel-drive A4 to the Sportback, with its superior cargo capacity and better looks. Audi seems confident in its die-hard three-box fans, but how much exposure to ever-sexier hatchbacks can they handle before they, too, fall?

2018 Audi A5 Sportback

VEHICLE TYPE: front-engine, all-wheel-drive, 5-passenger, 4-door hatchback
BASE PRICE: $43,575
ENGINE TYPE: turbocharged and intercooled DOHC 16-valve inline-4, iron block and aluminum head, direct fuel injection
DISPLACEMENT: 121 cu in, 1984 cc
POWER: 252 hp @ 6000 rpm
TORQUE: 273 lb-ft @ 1600 rpm
TRANSMISSION: 7-speed dual-clutch automatic with manual shifting mode
DIMENSIONS
WHEELBASE: 111.2 in
LENGTH: 186.3 in
WIDTH: 72.6 in
HEIGHT: 54.6 in
PASSENGER VOLUME: 93 cu ft
TRUNK VOLUME: 22 cu ft
CURB WEIGHT: 3700 lb
PERFORMANCE (*C/D* EST)
ZERO TO 60 MPH: 5.2 sec
ZERO TO 100 MPH: 13.9 sec
1/4-MILE: 13.9 sec
TOP SPEED: 130 mph
FUEL ECONOMY
EPA COMBINED/CITY/HWY: 27/24/34 mpg

[+] A7 style for less, decent standard-equipment list, versatile and large cargo hold. [–] Tight rear-seat access.

BUILT BY
MECHANIX
FASTFIT®
ELASTIC CUFF
ORIGINAL®
SEAMLESS PALM
M-PACT®
IMPACT PROTECTION
THE TOOL THAT FITS LIKE A GLOVE®
US: 800.222.4296 | WWW.MECHANIX.COM
#mechanix
MECHANIX WEAR

HYPE ▽

Ultimate Crossover Machine

Forget for a moment snazzy taglines. When you want to know what the character of a car-maker is (instead of the character it thinks it presents), look at the variety of models it sells. BMW is a good example. Here are the model tallies for its i, Z, M, and X lines either currently on sale or previewed in this section:

"i" MODELS: 2
□□

"Z" MODELS: 1
□

"M" MODELS: 9*
□□□□□□□■■

"X" MODELS: 7
□□□□□□□

**Two of these are also "X" models.*

Bentley

Bentayga: Already the fanciest SUV extant, the Bentayga will get even more so with the arrival of the Mulliner special edition, featuring two-tone paint, 22-inch wheels, and burled walnut veneers that fade to black. Other essentials: a rear-seat fridge and custom champagne flutes. Lesser Bentaygas can add a newly available third-row seat as well as the interior mood lighting that comes standard on Mulliners.

—

Continental GT: Midway through its second decade, the Continental GT is getting its first full redesign. Although we expect the new GT to arrive later this year, Bentley isn't quite ready to show it to you yet. Built on a new architecture shared with the Porsche Panamera, it will offer an on-demand all-wheel-drive system. The signature twin-turbo-charged 6.0-liter W-12 returns, bumped up to 600-plus horsepower. It'll be mated to an eight-speed automatic. The GT will ride on a new air-spring suspension and inherit the Bentayga's 48-volt anti-roll system. We also expect to see the twin-turbocharged 4.0-liter V-8 return, plus the introduction of a V-6–hybrid powertrain borrowed from the Panamera 4 E-Hybrid. Available as both a coupe and a convertible, the new Conti's styling is said to be previewed by the EXP 10 Speed 6 concept.

—

Minor trim changes: Flying Spur
Unchanged: Mulsanne

BMW

i3: On sale since 2014, this electric hatchback is due to receive an update for 2018 with lightly revised aesthetics and the latest BMW interior equipment. A larger-capacity, 33.0-kWh battery was made available for 2017, and reports point to a more performance-oriented version joining the lineup next year with a stronger electric motor and revised suspension.

—

i8: As with the i3, we expect an update for BMW's exotic sci-fi hybrid sports car early next year and the introduction of a topless variant. Both the coupe and droptop plug-ins are likely to sport revised styling inside and out as well as the latest iDrive 6.0 interface. A stronger battery pack and electric motor will allow for greater range and a boost in total power from the current 357 horses. The gas-burning component of the hybrid powertrain—a turbo-charged 1.5-liter inline-three—goes unchanged.

—

M4: Beyond some small trim changes to the M4, there is the addition of the CS model, which slots between the M4 with the Competition package and the now-defunct GTS track rat. The dual-clutch-only CS develops 454 horses from its turbo inline-six, 10 more than the Competition car, and it shares the latter's aggressive suspension and rolling stock. A CS-exclusive front splitter and the GTS's rear diffuser differentiate the exterior, while inside, the GTS lends its lightweight door panels. Expect a sizable upcharge over the Competition car's $72K base price.

—

M5: Production of BMW's new monster sedan should commence soon after its imminent formal unveiling, with the important bits being a 600-plus-hp twin-turbo V-8, an eight-speed ZF automatic, and an advanced all-wheel-drive system with a rear-drive mode. It also should be lighter than its predecessor, so expect it to be blazingly quick in a straight line. Pumped-up M-specific bodywork, an adaptive sport suspension, and lots of customizable chassis electronics are included. The first examples should hit dealer lots early next year with starting prices around $100,000.

—

X2: A sleeker version of the X1 crossover, the X2 follows the stylized path of the larger X4 and X6. The X1 will donate its transverse-mounted, 228-hp, turbo 2.0-liter four and eight-speed automatic, with a likely M Performance model boosting output a little and sharpening the X2's reflexes. When the X2 launches in early 2018, base models should cost just below $40K.

—

X3: A third-gen X3 crossover goes on sale this fall riding on a platform about two inches greater in wheelbase and overall length. All-wheel drive and an eight-speed automatic are standard, with the base engine a 248-hp 2.0-liter turbo four. An uplevel M40i features a 355-hp turbocharged inline-six as well as flared bodywork, a sportier suspension, bigger brakes, a variable exhaust, and unique all-wheel-drive tuning. Along with modern BMW sculpting, the X3 will receive the full suite of BMW's latest safety gear and interior widgets plus a bit more cargo space. Prices should start in the mid $40,000s.

—

X7: Joining the ranks of big luxury utes, the X7 will arrive early next year as a three-row behemoth with the trappings of a 7-series limo. All-wheel drive and an eight-speed auto should be standard, with power coming from the 7's familiar turbocharged

BMW X3 ▽

▽ BMW M4 CS

inline-six and V-8 engines. A hybrid version is likely. Production should begin late this year in Spartanburg, South Carolina, with prices ranging from about $70K to well above $100K.

—

Z4 or Z5: Although details remain scarce, BMW is developing this third-gen Z4 roadster, possibly to be named Z5, in conjunction with Toyota for its revived Supra coupe. The rear-drive convertible will be slightly larger than the previous Z4 and is likely to feature both BMW four- and six-cylinder engines and potentially a hybrid setup shared with Toyota. The cars also will share chassis components, with the Bimmer the pricier of the two, starting at close to $50,000. While it should launch in production guise sometime next year as a 2019 model, the roadster is set to be unveiled before this issue hits the stands.

—

5-series: BMW is fleshing out its new 5-series lineup with an M550i xDrive model sporting a 456-hp, twin-turbo 4.4-liter V-8 backed by an eight-speed automatic and all-wheel drive. On sale now for $73,095, it features big wheels, adaptive dampers, and darkened exterior touches. Also on sale is the new 530e iPerformance plug-in hybrid, which starts at $52,395. Offered with rear- or all-wheel drive, the 530e brings together a turbo 2.0-liter four, a 95-hp electric motor, and a 9.2-kWh battery for a combined 248 horses routed through an eight-speed auto.

—

6-series: Along with minor tweaks to existing versions until the 8-series officially becomes a thing, BMW is adding a four-door hatchback Gran Turismo to confuse us even more. Replacing the ungainly 5-series GT, this slightly less awkward 6 GT is similar in size yet lighter, and it benefits from the latest 5's updated chassis and equipment. A 335-hp 640i xDrive four-door, the only version available in the U.S., carries a hefty $70,695 price tag in standard Sport trim, with available Luxury and M Sport versions pushing the prices even higher.

—

8-series/M8: Previewed by the recent 8-series concept, BMW's new high number is all but confirmed for late next year, with the coupe leading a convertible and a four-door Gran Coupe that will replace most of the 6-series lineup. Sharing its platform with the current 7-series, the 8 should pack similar turbocharged inline-six and V-8 engines, an eight-speed automatic, and available all-wheel drive. A high-tech and opulent interior is a given, as is a striking exterior penned in BMW's latest design language. A high-powered M8 performance variant, which BMW already has shown in camouflage and plans to take endurance racing, should come along shortly thereafter with a fulsome six-figure price tag and most of the mechanicals from the latest M5 sedan.

Minor trim changes: Alpina B7, M2, M3, M6 convertible, M6 Gran Coupe, X1, X4, X5, X6, 2-, 3-, 4-, and 7-series
Unchanged: Alpina B6 Gran Coupe, M6, X5 M, X6 M
Dead: M6 coupe

Bugatti

Unchanged: Chiron

Buick

Enclave: Buick's second-generation three-row SUV arrives this fall on the enlarged bones of the similarly fresh 2018 Chevy Traverse. More than two inches longer than before, the Enclave comes only

Buick Enclave Avenir & Bentley Bentayga Mulliner ▽

BMW 8-series concept ▽

WAGONOIDS ▽

The Cost of Going Butch

It's not easy being a wagon lover in this market. It will help if you like plastic wheel-well trim and fascia molded to look like skidplates. And that stuff doesn't necessarily come cheap. Here are the base prices (for 2017 models, except where noted) for the currently available dress-up wagons.

SUBARU OUTBACK
$26,520

VOLKSWAGEN GOLF ALLTRACK
$26,670

BUICK REGAL TOURX
$29,995

VOLVO V60 CROSS COUNTRY
$42,695

AUDI A4 ALLROAD
$45,475 (2018)

VOLVO V90 CROSS COUNTRY
$56,295

with a 3.6-liter V-6 mated to a nine-speed automatic. Front-drive is standard and an all-wheel-drive system will be available. While all Enclaves will be lavishly equipped, this ute also ushers in Buick's range-topping Avenir subbrand, which brings fancier detailing and additional standard kit. Enclave Avenir transaction prices start at $54,340.

—

LaCrosse: The 2018 LaCrosse gets a 2.5-liter four-cylinder for its base engine, which is backed by a six-speed automatic and features a small motor-generator teamed with a 0.5-kWh lithium-ion battery. With a total output of 194 horsepower and 187 pound-feet of torque, this front-drive eAssist system will harness energy via regenerative braking, provide a slight assist under acceleration, and lower the car's base price to $30,490. Versions with the 3.6-liter V-6, which is the only way to get the available all-wheel drive, receive a nine-speed automatic in place of last year's eight-speed.

—

Regal: The Opel Insignia–based Regal Sportback fastback/hatchback (a beast with three backs! Kinky!) arrives late this year with a longer wheelbase and a more capacious interior than its sedan predecessor. A 250-hp, turbocharged 2.0-liter inline-four is the only mover, with front-drive cars using GM's nine-speed automatic. Versions with all-wheel drive, which employs a torque-vectoring rear axle, launch with an eight-speed gearbox. The sportier GS model will be powered solely by the 310-hp V-6 from the bigger LaCrosse. Additional GS fare includes big wheels, Brembo brake hardware, adjustable dampers, aggressive bodywork, and sport seats. Sportback pricing should start under $27,000, with GS models costing an extra $13K. Joining the butch-wagon category is the TourX variant of the new Regal. While it shares the non-GS Sportback's engine, the all-wheel-drive-only TourX has greater ground clearance, is 3.4 inches longer, and can hold a whopping 74 cubic feet of cargo with the seats folded. Additional body cladding completes the buffed-up look. A load of amenities and GM's latest safety features will be available. On sale in the fourth quarter, the TourX starts at $29,995 and approaches $40K fully loaded.

△ Cadillac XTS

—

Minor trim changes: Encore
Unchanged: Cascada, Envision
Dead: Verano

Cadillac

CT6: Cadillac's biggest sedan will be the vehicle on which the company introduces its Super Cruise semiautonomous driving system late this year.

—

Escalade/ESV: Cadillac's own Brutus Beefcake is updated with a 10-speed transmission.

—

XTS: The geezermobile, er, traditional luxury sedan of the Caddy lineup gets a facelift. Revised fenders, fascias, and grille plus new LED headlights make the XTS look more like the CT6. The company fiddled with the chassis to provide a more comfortable ride. Not enough improvement for you? Well, Cadillac says it also added sound-deadening material to quiet the cabin, and made adjustments to what it calls "seat foam geometry." Some updated interior trimmings and the newest version of Cadillac's infotainment system round out the changes.

—

Minor trim changes: ATS/ATS-V, CTS/CTS-V, XT5

Chevrolet

Camaro: *see first test of the 650-hp ZL1 1LE, page 056*

—

Colorado: The path to off-road glory is littered with bumpers shorn from their street-oriented hosts, so Chevrolet removes nearly all of the Colorado's chin for ZR2 buyers. The burly package also combines knobby 31-inch tires, longer front control arms and springs, spool-

Buick Regal ▽ TourX

Regal photograph by JOHN ROE

Zen and the art of drifting.

Chevrolet Corvette Grand Sport Carbon 65

PARTY TIME

"Carbon 65 special-edition Grand Sport and Z06 models celebrate the Corvette's 65th birthday with special gray paint, carbon-fiber doodads, and natty doorsills."

valve shocks, and a wider rear axle to match the widened front track. We'd declare it a mini Ford Raptor but, with gas V-6 and four-cylinder diesel engine options carried over from the regular Colorado, this beast ain't quick. "Raptor Lite" feels right, and not only because we called it as much in "Atomic Prospector" [August 2017].

—

Corvette: Carbon 65 special-edition Grand Sport and Z06 models celebrate the Corvette's 65th birthday with special gray paint, carbon-fiber doodads, and natty doorsills. It's notably less interesting than the ZR1, though, which will go on sale early next year as a properly overpowered and wildly capable example of the sports car's long-running front-engine, rear-drive format before it goes mid-engine. Behind the trio of massive intakes cut into the ZR1's front bumper sits a 700-plus-hp V-8 so awesome, Chevy punched out a hood bulge to contain it. Visual stimulation runs rampant: A huge rear wing and various vents and slats all over the body do their best to keep this Vette on terra firma.

—

Equinox: *see first test of the 252-hp 2.0-liter model, page 062* This new downsized crossover is also available with a 170-hp turbo 1.5-liter inline-four. A 1.6-liter turbo-diesel should join the lineup later this year.

—

Express: A longtime denizen of the "unchanged" section of our New Cars roundups, the ancient Express sees its biggest update in years. The Colorado pickup's optional 2.8-liter four-cylinder diesel engine was a late model-year addition for this full-size van in 2017. And joining its engine roster for 2018 is the Silverado's 4.3-liter V-6, which replaces the Express's old 4.8-liter V-8. OnStar and hill-start assist now are standard. In related news, grandpa finally got an iPhone.

—

Tahoe: A new and aggressive Rally Sport Truck kit, or RST, brings monochromatic exterior trim and 22-inch wheels. Add the optional Performance package and you get GM's 420-hp 6.2-liter V-8 and adaptive dampers from the GMC Yukon Denali and Cadillac Escalade. The package also includes the new 10-speed automatic transmission, but enlarged Brembo brakes cost extra.

—

Traverse: No longer do GM's three-row crossovers share basic dimensions. Where the new GMC Acadia is smaller than before (and much lighter), the even newer Traverse rides on a wheelbase longer than not just the Acadia's, but also the outgoing Traverse's. Interior packaging improvements, compared with the old Traverse, give occupants more space, although total cargo volume and third-row legroom shrinks. Of course, the latest infotainment and active safety gear is available to keep kids happy and to stop drivers from crashing into stuff. A 255-hp turbocharged 2.0-liter inline-four is exclusive to RS models; all others come with a 305-hp V-6. Every Traverse uses GM's new nine-speed automatic transmission.

—

Minor trim changes: Cruze, Impala, Silverado 1500, Silverado 2500/3500 HD, Sonic, Suburban, Trax
Unchanged: Bolt, City Express, Malibu, Spark, Volt
Dead: SS

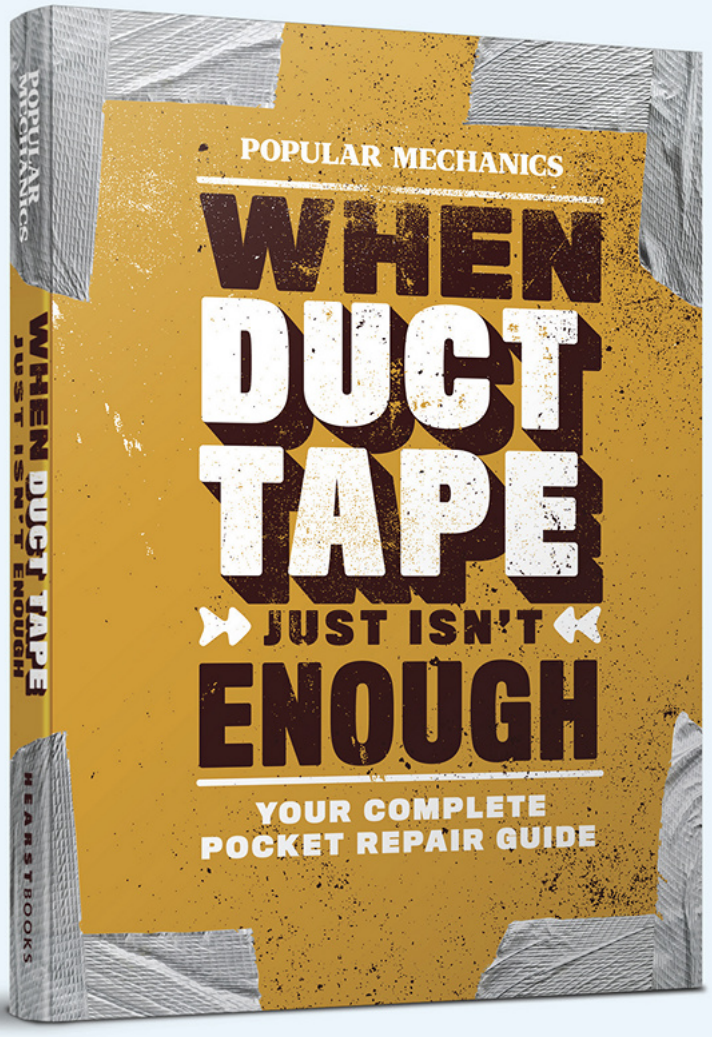
△ Chevrolet Traverse

Chrysler

Minor trim changes: Pacifica, 300
Dead: 200

Corvette photograph by ANDREW TRAHAN

FAST AND EASY
COMMON HOME REPAIRS



CLOGGED GUTTER? BROKEN WINDOW? FLICKERING FLUORESCENTS?

DON'T CALL A PROFESSIONAL! TRY THIS NIFTY GUIDE TO FAST, EASY HOME REPAIRS INSTEAD.

In this world there are two types of people: those who can fix whatever goes bust, and those who beg the first group for help. **Popular Mechanics When Duct Tape Just Isn't Enough** gives you simple and ingenious solutions for many common home quandaries, from plumbing and appliance failures to computer breakdowns and pest infestations and more!

AVAILABLE WHEREVER BOOKS ARE SOLD • $14.95 ($16.95 Canada), Flexibound

HEARST BOOKS

IT'S A BIRD! IT'S A PLANE! IT'S... SUPER CAMARO!

Chevy cut no corners with the Camaro ZL1 1LE, but it surely climbed plenty of curbs.

_by K.C. Colwell

_photography by James Lipman

General Motors must have authorized overtime for its performance and badge-making departments over the past few years. Witness the sustained, affordable excellence of all those SS, 1LE, Z51, Z06, Z07, ZR1, ZL1, and Cadillac V-series models the corporation keeps cranking out. Now comes a car that combines two of those GM-speak codes, ZL1 and 1LE, but the sticker price doesn't seem to cover the sum of the parts.

The ZL1 1LE enhancements stretch the Camaro's performance envelope like a balloon ready to pop. Never mind the Corvette Z06–derived LT4 supercharged 6.2-liter V-8 that is good for 650 horsepower and 650 pound-feet of torque. Or the functional

typography by NATHAN YODER

ZL1

[+] Supercar grip and lap time, Z06 thrust, costs less than a base Porsche 911. [–] It's a Camaro, so a tiny back seat and compromised visibility.

carbon-fiber wing (a first for GM production cars) designed in a Formula 1 wind tunnel. The wing has the same effect as 300 pounds of lead ballast at 150 mph. Or the gaping front end that swallows 106 cubic feet more air per minute than a regular ZL1 at 87 mph. Or the chin splitter and dive planes on the cheeks. Instead, for just a moment, fixate on our measurement of the Camaro's maximum lateral acceleration: 1.18 g's. That kind of steady-state grip puts the 1LE in an elite group. Indeed, there's only one car we've measured with more stick and that's the Corvette Z06 equipped with the Z07 package (1.19 g's). Everything else lets go sooner, period.

This super Camaro will also bring its 3842 pounds to a halt from 70 mph in 141 feet, besting the 3710-pound Ford Mustang Shelby GT350R by five feet. To make the 1LE's chassis this capable, GM had partners. Goodyear supplies the Eagle F1 Supercar 3R rubber, and this is the first car to wear these DOT-legal track meats, here in size 305/30ZR-19 (front) and 325/30ZR-19 (rear). They wrap around forged-aluminum wheels that are one inch smaller in diameter and thus, along with the tires, save a total of 13 pounds in precious rotating inertia and unsprung mass compared with the ZL1.

The other half of the chassis performance comes from Canadian supplier Multimatic in the form of aluminum-bodied spool-valve dampers. Not only do they provide an elegant way to vary damping force, but the inverted struts with a ball-jointed top mount provide a means to get race-car-like negative camber out of the front end [see "Factory Stance"]. Together, the four dampers are about 23 pounds lighter than the ZL1's steel-bodied magnetorheological dampers. The rear subframe and its multilink suspension are isolated—if you want to call it that—from the body by rigid aluminum pucks instead of rubber bushings, and the rear anti-roll bar is adjustable to three positions. Locking down the rear end and firming up the front means you can feel every crack in the road, and even the slightest variation in lateral thrust, with clarity and precision.

The 1LE's rear wing produces downforce (at 150 mph) roughly equal to the weight of one baby elephant plus one Kelly Ripa riding in the trunk of the car.

All these settings allow owners to fine-tune their cars to their home tracks. At Area 27, a 3.0-mile circuit in British Columbia designed by Jacques Villeneuve, we ran 40-plus laps in the 1LE. It was the iron-rotor brakes, which carry over from the regular ZL1,

Factory Stance

Multimatic dampers also stroked under the gen-five Z/28, but the ZL1 1LE's spool-valve shocks have a new trick. The ball-jointed and forged-aluminum top mount of the front strut is adjustable to increase negative camber by 1.7 degrees. To set the car's camber for the track, you remove an alignment pin and the three bolts at the top of the strut tower, twist the top mount 180 degrees, reattach, and—voilà, instant camber. Combined with fairly common eccentric alignment bolts, the ZL1 1LE can have as much as 3.7 degrees of negative camber, though Chevy recommends just -2.7 for the track. Chevy supplies ZL1 1LE owners a 51-page supplement with all the recommended track mods, which include removing a water deflector in the hood and swapping to 15W-50 Mobil 1 motor oil (from 5W-30). —*KC*

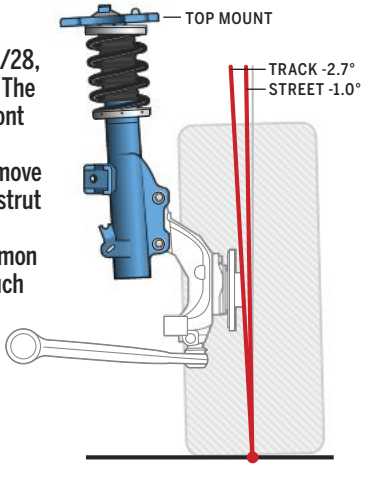


ILLUSTRATION BY PETE SUCHESKI

2018 Chevrolet Camaro ZL1 1LE

VEHICLE TYPE: front-engine, rear-wheel-drive, 4-passenger, 2-door coupe
PRICE AS TESTED: $72,595
BASE PRICE: $71,295
ENGINE TYPE: supercharged and intercooled pushrod 16-valve V-8, aluminum block and heads, direct fuel injection
DISPLACEMENT: 376 cu in, 6162 cc
POWER: 650 hp @ 6400 rpm
TORQUE: 650 lb-ft @ 3600 rpm
TRANSMISSION: 6-speed manual

DIMENSIONS

WHEELBASE: 110.7 in
LENGTH: 188.3 in
WIDTH: 74.7 in
HEIGHT: 52.0 in
PASSENGER VOLUME: 85 cu ft
TRUNK VOLUME: 9 cu ft
CURB WEIGHT: 3842 lb

C/D Test Results

ZERO TO 60 MPH: 3.5 sec
ZERO TO 100 MPH: 7.9 sec
ZERO TO 150 MPH: 18.7 sec
ROLLING START, 5–60 MPH: 3.9 sec
1/4-MILE: 11.7 sec @ 124 mph
TOP SPEED: 190 mph (drag ltd, mfr's claim)
BRAKING, 70–0 MPH: 141 ft
ROADHOLDING, 300-FT-DIA SKIDPAD: 1.18 g

FUEL ECONOMY

EPA COMBINED/CITY/HWY: 16/14/20 mpg

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

and not the tires that kept us from turning more than five hot laps at a time; the pedal gets a little long on the fifth lap. Even so, few cars feel as stable while braking in corners as the 1LE. Throw a downshift in there, and the car never gets unsettled. In corners, the tires claw for grip like a cat scurrying up a tree. Where you expect understeer, you get a neutral car, and too much throttle on exit causes the rear end to step out, either gently if you finesse it or aggressively if you're being deliberately foolish.

This Camaro will do a zero-to-60-mph run in 3.5 seconds (all in first gear, mind you) with the eight-piece band blaring a Motown anthem. An 11.7-second quarter-mile at 124 mph is in the jukebox, too. That's just a couple tenths of a second off the ZL1 automatic's time. Some of the swiftness is a dividend of the 62 pounds saved (manual-to-manual) by the 1LE conversion, though it isn't quite enough to make up for the better and quicker shifting of the roughly 100-pound-heavier automatic.

While the chassis mods make for a fantastic track car, the 1LE's ride is a little jarring for daily use as its springs are three times stiffer than those of the ZL1. Matt Scrase, Camaro's performance variant manager, admits that he wanted to make the car a bit more extreme by ditching the trunk lining, for example. But he was thwarted by GM product planners mindful of history, who desired a 1LE that was true to its gen-three Camaro roots as an add-on to the existing equipment, not a give-and-take option. Unlike the gen-five Z/28, this 1LE has all the features of the ZL1, including heated and ventilated front seats, a heated steering wheel, and an 8.0-inch infotainment display.

One thing you won't see in a ZL1 1LE is an automatic transmission. The manual 'box is identical to the ZL1's six-speed except for a shorter sixth gear (0.68:1 versus 0.54:1). There are only a few tracks this side of Bonneville that even need sixth, and one of those is the Nürburgring Nordschleife, where a ZL1 1LE turned a lap in just over seven minutes and 16 seconds—more than 20 seconds quicker than the Z/28 and 13 quicker than the gen-six automatic-equipped ZL1.

That 'Ring time puts the ZL1 1LE in the company of virtual vaporware like the Gumpert, the Radical, and the Donkervoort (yes, that's a car company). The best part of this package is its asking price: $71,295. Nearly everything else at this performance tier is two to three times pricier. The next closest performer is, surprise, a Z06 with the Z07 package, but it's still $20K more expensive. Chevy hasn't just made performance strides, it's made performance-per-dollar strides, too. Just don't tell the accounting department it can charge a lot more for this track animal.

2018

Q50

OUTPERFORM THE EXPECTED.

Enhance your driving experience with the 2018 INFINITI Q50 Red Sport 400. With its 400-horsepower V6 twin-turbo engine and Direct Adaptive Steering,®* it gives drivers a true performance vehicle that keeps them moving forward.

INFINITI®

EMPOWER THE DRIVE™

*Available feature: Direct Adaptive Steering. See owner's manual for details.

©2017 INFINITI.

The Unnatural Order of Things

CHEVY'S NEW 2.0-LITER EQUINOX IS GREAT, AND CATS ARE MARRYING DOGS. _*by Eddie Alterman*

▽

GENERAL MOTORS HAS BECOME surprisingly adept at developing rear-wheel-drive chassis that humiliate Europe's legacy sports sedans and coupes. The Cadillac CTS, for example, makes the Audi A6 feel as if it has a sprained ankle, and it positively fat-shames the BMW 5-series. And last year, when we found ourselves confronted with the choice of whether to loft the Mercedes-AMG C63 S or the Chevy Camaro to our 10Best list, it was Milford, not Affalterbach, that carried the day.

Now GM is moving into the rapidly expanding suburb of Krossoverenberg, applying its dynamic aptitude to people movers. The all-new Chevy Equinox—and we can't even believe we're saying this, considering where the old Equinox left off—feels more connected, nimble, and dialed-in than some far costlier German competition.

[+] The engine this chassis deserves, slick transmission. [–] Top end of the pricing scale, thick A-pillars.

If you are having a hard time believing this and demand proof that this Chevy secretly has the Europeans, rather than its less-expensive Japanese and Korean rivals, in its sights, consider this: The Equinox's new turbocharged 2.0-liter four-cylinder (the 2018 model launched with a turbo 1.5-liter inline-four, and a 1.6-liter turbo-diesel is on the way) makes the same 252 horsepower as the Audi turbo 2.0-liter four in the Q5. The most powerful Honda CR-V engine, the turbocharged 1.5-liter, musters only 190 horsepower. The Chevy 2.0-liter delivers its 260 pound-feet of torque over an Audi-like rev range—2500 rpm to 4500 rpm in the Chevy against 1600 to 4500 in the Q5. But if it lacks the off-idle push of the Audi 2.0, it's gutsy and punchy where the Equinox 1.5 is a bit sad.

The 2.0-liter engine is lashed to an all-new nine-speed automatic that supplies silken shifts with uncanny prediction, the transmission spanning a 7.6:1 overall ratio that helps the all-wheel-drive model produce 28 mpg on the EPA's highway cycle. Like the 2018 Q5's new Quattro with Ultra, the Equinox's all-wheel-drive system can idle the driveshaft to the rear axle for greater efficiency.

In our testing, the 2.0-liter Equinox hit 60 in 6.6 seconds. That's more than two seconds quicker than the new 1.5-liter Equinox and comfortably ahead of the top-trim CR-V, Ford Escape, and Kia Sportage. It lags behind the Q5 by 0.8 second.

Admirable output figures don't necessarily make for an admirable crossover, but here they are delivered via a new platform that Chevy claims shaves almost 400 pounds off that of the outgoing Equinox, depending on trim. On our scales, the 2.0-liter car was 220 pounds lighter than the 2016 2.4-liter model we tested. The Equinox's all-new body structure comes across as stiff and quiet, the chassis exhibiting refined impact damping and the body showing great discipline in corners. Whereas the Audi is cold and stoic, this Chevy has verve.

The new Equinox is also the right size inside and out, offering three more cubes behind the rear seat than the Audi, though less cargo room than the CR-V. Our $37,805 Equinox was Chevy-familiar inside, with the optional eight-inch MyLink screen dominating. Nothing optional about the huge A-pillars, the too-short-for-six-footers front-seat bottoms, and some plastics that recall the slot-car tracks of one's youth. Still, this Equinox represents a quantum leap over the old one, nearly landing within the Audi's footprints.

2018 Chevrolet Equinox LT 2.0T AWD

VEHICLE TYPE: front-engine, front-/all-wheel-drive, 5-passenger, 4-door hatchback
PRICE AS TESTED: $37,805
BASE PRICE: $33,785
ENGINE TYPE: turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection
DISPLACEMENT: 122 cu in, 1998 cc
POWER: 252 hp @ 5500 rpm
TORQUE: 260 lb-ft @ 2500 rpm
TRANSMISSION: 9-speed automatic with manual shifting mode

DIMENSIONS

WHEELBASE: 107.3 in
LENGTH: 183.1 in
WIDTH: 72.6 in
HEIGHT: 65.4 in
PASSENGER VOLUME: 99 cu ft
CARGO VOLUME: 30 cu ft
CURB WEIGHT: 3778 lb

C/D Test Results

ZERO TO 60 MPH: 6.6 sec
ZERO TO 100 MPH: 17.1 sec
ZERO TO 130 MPH: 39.8 sec
ROLLING START, 5–60 MPH: 7.0 sec
1/4-MILE: 15.1 sec @ 94 mph
TOP SPEED: 130 mph (governor limited)
BRAKING, 70–0 MPH: 167 ft
ROADHOLDING, 300-FT-DIA SKIDPAD: 0.85 g*

FUEL ECONOMY

EPA COMBINED/CITY/HWY: 24/22/28 mpg
***C/D* OBSERVED:** 22 mpg

**Stability-control-inhibited.*

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

photography by MICHAEL SIMARI

THE NEW
MILE-HIGH CLUB

SCHEYDEN®

MODEL C-130

FRAME TITANIUM
LENS MINERAL GLASS

$309 NON-POLARIZED
$349 POLARIZED

Experience what pilots around the world already know

Whether it's the Air Force Thunderbird team, a competitive aerobatic pilot, or an airline flight crew, since 1999 Scheyden has been providing precision eyewear for pilots who demand the highest level of quality obtainable.
Find out why Scheyden has become General Aviation's most popular eyewear. All of our frames are designed for comfort, functionality, and provide a level of quality that most eyewear manufacturers shy away from.
You don't need to carry a pilot certificate to enjoy the superiority that these frames and optics provide. Step up to the flight deck, and see what the world of aviation sees. Experience Scheyden Precision Eyewear.

SCHEYDEN.COM 714.843.1975 8-5 PT M-F

△ Ford Expedition Platinum & Ford EcoSport

DOLLAR MENU ▽

"…a single Sacagawea coin (a dollar bill also will be accepted) purchases the pieces to unlock the full 840 horsepower on 100-octaine fuel and a claimed 9.7-second quarter-mile time."

Dodge

Challenger: Lucifer is your co-pilot in the single-seat, barely street-legal, $86,090 Challenger SRT Demon. Its supercharged 6.2-liter V-8 rates 808 horsepower on premium gas, but a single Sacagawea coin (a dollar bill also will be accepted) purchases the pieces to unlock the full 840 horsepower on 100-octane fuel and a claimed 9.7-second quarter-mile time. Line-lock helps the driver warm the rear drag radials, a special air-conditioning circuit chills the intercooler, and a trans brake makes for easy launches and helps the Demon perform the briefest of wheelies. The passenger seat and a three-person rear bench also can be added back in for a dollar each. If the Demon is too sinful an indulgence, the new Challenger SRT Hellcat Widebody adopts a similar look with fender flares swallowing 305/35ZR-20 tires—wider than the standard Hellcat's—to better transfer its 707 horsepower and 650 pound-feet of torque to the pavement. On the other end of the spectrum, Dodge is now offering an all-wheel-drive Challenger, called the GT AWD. It comes only with the 305-hp 3.6-liter V-6. Naturally, we've written a haiku about it:

Torque to all four wheels
But only Pentastar torque
No burnout, no fun

Dodge Durango SRT ▷

Durango: A 475-hp, three-row, family thrill ride, the all-wheel-drive Durango SRT tows 8600 pounds and hustles to 60 mph in roughly 4.5 seconds. Every Durango SRT purchase includes a day at the Bob Bondurant School of High Performance Driving to ensure that not a single second is dropped in the daily race to arrive on time at Quidditch practice, keytar lessons, and SpiralScouts.

—

Minor trim changes: Charger, Journey
Unchanged: Grand Caravan
Dead: Viper

Ferrari

488 Special Edition: Ferrari still won't confirm anything, but we expect to see a 488-based follow-up to the 458 Speciale and 430 Scuderia sometime in model-year 2018. Ferrari must be eager to put the Lamborghini Huracán Performante in its place, which the max-performance 488 will attempt to do by removing mass, adding power, and stirring additional firmness into the suspension. Expect a price tag that starts deep in the $300,000 range.

—

812 Superfast: *see first drive, page 066*

—

Unchanged: California T, GTC4Lusso, 488GTB/Spider
Dead: F12berlinetta, F12tdf

Fiat

500/500 Abarth/500c/500c Abarth/500e: Fiat is tight-lipped on details, but expect a mid-cycle refresh later in the 2018 model year.

—

500L: This portly fella gets an exterior makeover that includes redesigned front and rear fascias, bodyside moldings, and wheels. A new instrument-cluster display, an updated center console, relocated HVAC controls, and a new steering wheel grace the interior. Fiat's Uconnect 4 infotainment system with Android Auto and Apple CarPlay is now standard fare.

—

Minor trim changes: 124 Spider, 500X

Ford

EcoSport: Joining the likes of the Chevy Trax, Jeep Renegade, Kia Soul, Mazda CX-3, and Toyota C-HR in the starter-SUV segment, Ford's smallest ute goes on sale in early 2018 at a price that's expected to start around $19,000 and rise above $25,000 for a loaded example. Based on the Fiesta and built in India, the EcoSport has been on sale in much of the rest of the world for a few years, and the version we're getting benefits from a mid-cycle refresh that updates the front and rear fascias. The U.S.-bound EcoSport will offer two engines: a naturally aspirated 2.0-liter inline-four with 160 horsepower and a turbocharged 1.0-liter three-cylinder with 123 horsepower. Both will connect to a six-speed automatic. Front-wheel drive will be standard, with all-wheel drive an option. Also, Ford insists that you pronounce the car's name "Echo-Sport." They're dead serious about that.

Dodge Challenger SRT Demon ▽

Expedition: Ford's giant three-row SUV is new for 2018. Available in two lengths—long and don't-even-think-about-parallel-parking long—the Expedition's new aluminum body bolts to a steel frame. Ford claims that the Expedition will lose up to 300 pounds compared with its predecessor. Ford is offering two versions of its twin-turbocharged 3.5-liter V-6 here: Standard on all but the top Platinum trim level is a 3.5-liter with 375 horsepower and 470 pound-feet of torque. Stepping up to the Platinum yields a different tune good for 400 horses and 480 pound-feet of torque.

—

F-150: Behind the new grilles, headlights, and bumpers are a number of new powertrain choices for the best-selling vehicle in America. On the bottom rung is a 3.3-liter naturally aspirated V-6 with port and direct fuel injection that makes 290 horsepower and 265 pound-feet of torque, eight more horses and 12 more pound-feet than the naturally aspirated 3.5-liter V-6 it replaces. The twin-turbocharged 2.7-liter V-6 gains a new fuel-injection system with port and direct injection; horsepower remains 325, but torque is up 25 pound-feet, to 400. A 10-speed automatic is standard with the 2.7-liter. The popular 375- and 450-hp versions of the twin-turbo 3.5-liter V-6 carry over and are mated to the 10-speed automatic. Don't fret: Ford hasn't ignored the traditionalists who want a V-8; those folk can still order the naturally aspirated 5.0-liter eight-cylinder, only now it comes with the 10-speed auto and makes 395 horsepower (10 more horses than before) and 400 pound-feet of torque (up 13 from before). Lastly, a 3.0-liter turbo-diesel V-6 joins the engine lineup early in 2018, though horsepower and torque numbers have not been disclosed. Adaptive cruise control and a collision-warning system are new options.

—

Mustang: Now in the middle of the current gen's life cycle, the original pony car benefits from a number of changes for 2018. Most obvious are the newly styled front and rear fascias that feature new lights and a slightly different, if still distinctly Mustang, look. More important changes are under the hood. While the 3.7-liter V-6 is off to the glue factory, the turbocharged 2.3-liter four receives a new overboost function. Ford isn't revealing what the four will make, but we're expecting the engine's output to climb from today's 310 horsepower to something closer to the Focus RS's 350. Mustang GT customers will be delighted to learn that the Coyote 5.0-liter V-8 will now have direct and port fuel injection, a four-outlet exhaust, and a 7500-rpm redline (500 higher than the current V-8's). Again, Ford isn't revealing how much total power the revised engine will make, so we're left to guess that it'll be in the neighborhood of 450 horsepower. Both engines come with a standard six-speed manual. A 10-speed automatic is optional. Chassis changes include new damper tuning, rear-suspension bushings, and anti-roll bars. In addition to a large rear wing, Mustangs equipped with the Performance package will get magnetorheological dampers similar to those used on the GT350. The interior is refreshed with a new 12-inch digital gauge cluster that has three modes (sport, normal, and track).

—

Minor trim changes: Edge, Escape, Explorer, F-150 Raptor, Transit Connect

Unchanged: C-Max, Fiesta/ST, Flex, Focus/ST/RS, F-Series Super Duty, Fusion/Sport, GT, Taurus, Transit

Genesis

G80: *see first test of the G80 Sport, page 072*

Besides the new Sport model, Genesis's smaller limo gets a revised front fascia while the interior has a new instrument cluster. An even smaller Genesis, the G70, will arrive in early 2018. This rear- or all-wheel-drive sedan is the Kia Stinger's sister ship. The two share engines, a turbo 2.0-liter and a turbo 3.3-liter V-6.

—

Minor trim changes: G90

SNAILS! ▽

Turbo Takeover

Most carmakers are big on turbocharging these days, but Ford was, in fact, earlier than most to spread turbos throughout its lineup. The company was the first to market the modern turbocharged direct-injection engine under its own brand, EcoBoost. Below are the percentages of turbocharged engines (including turbo-diesels) available in each Ford model line.

0%
C-MAX, TRANSIT CONNECT

33%
F-SERIES SUPER DUTY, MUSTANG/GT350

50%
ECOSPORT, FLEX

66%
EDGE, ESCAPE, EXPLORER, FIESTA/ST, F-150/RAPTOR, TAURUS, TRANSIT

75%
FOCUS/ST/RS, FUSION/SPORT

100%
EXPEDITION, GT

Ford Mustang GT ▽

typography by NATHAN YODER

SUPER FAST

The Ferrari 812 Superfast is a promise delivered, but also so much more.

_by Jared Gall

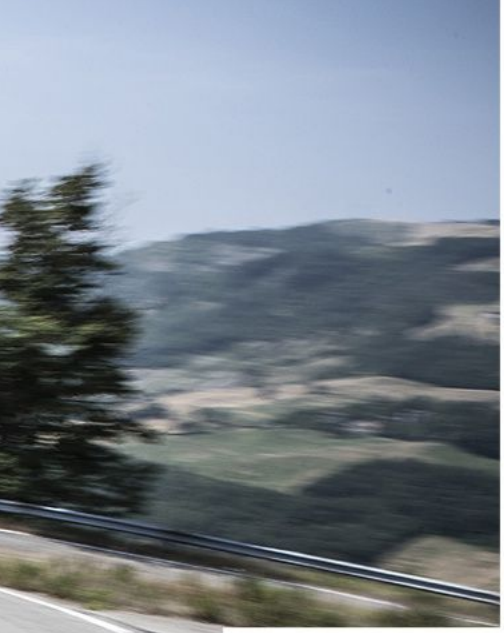
_photography by Charlie Magee

Eleven is an unavoidable number when it comes to the Ferrari 812 Superfast, so named because it makes 800 horsepower from 12 cylinders. That is, 800 metric horsepower, which is 1.4 percent weaker than our horsepower. On our shores, the 812 Superfast is actually rated at 11 fewer horsepower, or a mere 789. Never mind that the standard by which engine outputs are derived allows for a nearly equal 1 percent deviation from the standard measured in a lab. Or the fact that an engine's output changes as a function of temperature, humidity, barometric pressure, and fuel quality. Or that not even Lewis Hamilton could tell the difference between 789 and 800 horsepower in a 3900-pound car. Still, our Ferrari is, technically, a 7.8912 Superfast.

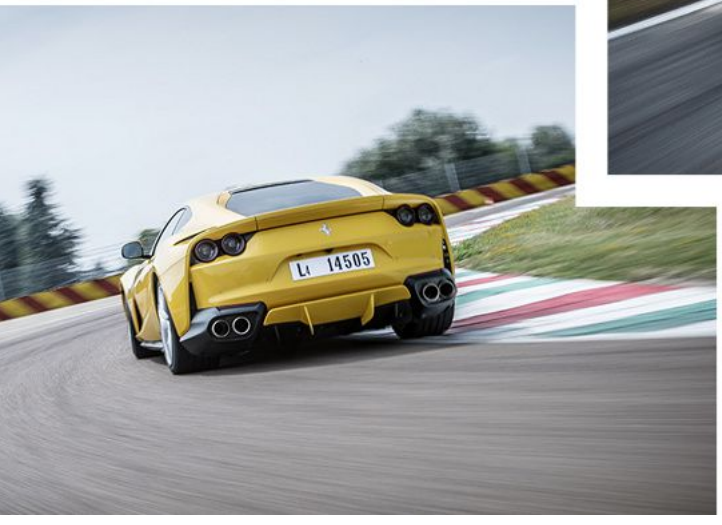
The real bitch of it is that there's no synonym for "super" that is 98.6 percent as strong. "Superfast" remains apt. And most of the words that best describe the 812 are the sort that get spelled with asterisks, dashes, or other forms of censorship anyway. Like the 1036-hp Ferrari FXX K, the Superfast is a V-12 vulgarity, a carnal extravagance of power and speed. It accelerates as though the long pedal is connected directly to the speedometer. Physics and power delivery are just middlemen. Squeeze the throttle and the speedo needle jumps—always and immediately. And through the hills of northern Italy, the 812 moves as effortlessly as a wingsuit.

It starts with the structure and suspension of the Superfast's predecessor, the mostly aluminum F12berlinetta. The 812's bodywork is all new and likewise stamped out of aluminum. It's punched nose to tail with vents and passageways to let air pass through the car instead of just around it, keeping vital bits cool and the tires stuck to the pavement. There are two significant adoptions from the F12's track-focused variant, the F12tdf: wider front tires—275s versus the F12berlinetta's 255s—and rear-wheel steering. Most other such systems are tuned to steer the rear wheels counter to the fronts at lower speeds to enhance agility. Ferrari insists that the 812's wide front rubber gives it all the low-speed agility it needs, and that the rear-steering system is only there to steer in the same direction as the front tires to enhance high-speed stability.

The 812 also employs Ferrari's first electrically assisted power-steering system. Through the streets of Maranello just outside the



Because you can't ogle the V-12 from the cockpit, Ferrari offers a peek under the hood via instrument clusters for both driver and passenger. The steering wheel remains great Formula 1 theater, insofar as F1 cars have Bluetooth.



The 812 Superfast bulges like a snake that's swallowed something large. In this case, both a 789-hp V-12 and a 99th-percentile American male.

factory gates, it felt a touch overboosted. But once the town gave way to hills and fields, the steering proved to match the feeling of the entire car. Agility we expected, but the Superfast feels Superlight, utterly belying its 3900-pound curb weight and the V-12 in the nose. To prove how Supernimble the 812 is, Ferrari sent us out on roads through the mountains and woods that are so tightly kinked that they are better suited to a Miata than anything with 800—er, 789—horsepower. Their lumpy surfaces suggest that perhaps the paving crews simply laid asphalt down over the grass and dirt and called it a day. But the 812 jukes and dances like history's most furious MX-5. The steering is immediate and effort builds faithfully. There's little feedback from the road surface, but given how great the steering is in other respects, we'd give it just a couple of years before access to the best rack on the planet becomes another reason to resent the 1 percent.

We were in the car for the better part of an hour before we had much opportunity to visit the high end of the tach, a delay that lulled us into a false sense of security. Below 5000 or so rpm, the 12 is, if not docile, then at least not evil. But then we brought the car back to HQ and ventured out onto Ferrari's Fiorano test track.

At 6.5 liters, the Superfast's 12 is one of the largest passenger-car engines on sale today. It even sounds huge in old-school terms, its 396 cubic inches equaling one of Chevrolet's muscle-car-era big-blocks. The 812's 396 shares its block with the F12's engine, with new pistons, a new crank increasing the stroke, better-flowing heads with larger valves on both ends of the combustion cycle, and more. And even though it'll hit a claimed 211 mph at redline in seventh, with more than 400 pound-feet on tap from about 2500 rpm, the 812 is happy to drop its dual-clutch automatic into that very gear and lug around town at school-zone speeds.

But as revs rise and the soundtrack cranks out the stuff of Formula 1 fantasy, the power seems to build exponentially. There are about 600 horses at the ready at 6000 rpm, 700 at 7000, and, as the tach winds up, the compounding sensation of acceleration is stupefying. The engine revs so far beyond the point where the power starts to get disorienting that each redline upshift is almost a relief. Expect the zero-to-60 sprint to be over in just 2.8 seconds, and the quarter-mile to pass in 10.8 or so.

You'd think a 789-hp, $345,000 car on an unfamiliar track would be intimidating, but the 812 is so controllable and predictable that we were immediately at ease. By the end of our second lap, we'd turned stability control off and the 812 was sideways. It feels as if you can transfer individual pounds of load to each rear wheel to balance the car through turns, and the linear power delivery means that you can meter precisely as many ponies as you need to maintain any intended line or slip angle. Good thing the brakes are strong, because the V-12 urges you to stay on the throttle deeper and deeper into braking zones so you can listen to the pitch rise just a few more hertz.

Not only is it ferocious, but the 812 is comfortable, even on crappy roads. A spacious interior and relaxed driving position do much for the car's approachability, as does the excellent visibility to the front and sides. The high tail does mean the view rearward is more like that of a mid-engined car, though. And while the ride can be choppy, the suspension rounds the harsh edges off any bumps. This would make a perfectly agreeable daily driver. But it's always ready to crank up the intensity. We'd suggest turning it to 11.

2018 Ferrari 812 Superfast

VEHICLE TYPE: front-engine, rear-wheel-drive, 2-passenger, 2-door hatchback
BASE PRICE: $345,000 (est)
ENGINE TYPE: DOHC 48-valve V-12, aluminum block and heads, direct fuel injection
DISPLACEMENT: 396 cu in, 6496 cc
POWER: 789 hp @ 8500 rpm
TORQUE: 530 lb-ft @ 7000 rpm
TRANSMISSION: 7-speed dual-clutch automatic with manual shifting mode
DIMENSIONS
WHEELBASE: 107.1 in
LENGTH: 183.3 in
WIDTH: 77.6 in
HEIGHT: 50.2 in
CARGO VOLUME: 18 cu ft
CURB WEIGHT: 3900 lb
PERFORMANCE (C/D EST)
ZERO TO 60 MPH: 2.8 sec
ZERO TO 100 MPH: 6.8 sec
1/4-MILE: 10.8 sec
TOP SPEED: 211 mph
FUEL ECONOMY
EPA COMBINED/CITY/HWY: 13/12/16 mpg

[+] If 8900-rpm V-12s were common, man wouldn't bother with music; a chassis just as awe-inspiring as the engine. [–] Somewhere in the world today, a man stubbed his toe in the dark of the morning.

Do you hate your detector?

It was your best friend, now it never shuts up.

The good news: New cars have a safety feature, the blind-spot warning system. Many models use K-band radar to "see" nearby cars.

The bad news: Onboard radar turns each of these "seeing" cars into mobile K-band false alarms. A blind-spot system may tag along with you for miles. You're stuck, not knowing which car to maneuver away from. GPS is no solution. It doesn't work on mobile falses.

V1 wins war against false alarms: New computer code weeds out phony K-band alerts.

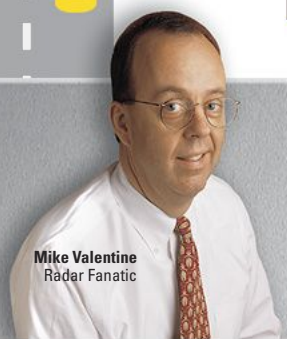
Why you will love V1

Problem solved: V1 has an algorithm that recognizes these mobile false alarms and excludes them, yet never blocks a real threat. We've named it **Junk-K Fighter**. And it's now built into all new V1s.

Detectors that don't detect: It's easy to make a detector without false alarms. Just give up on long-range warnings. Our competitors play that game, we don't.

First obligation of V1: V1 will never miss a threat. Quiet is nice, but missing an ambush is fatal. That's why we don't use GPS. GPS knows only location, and if the frequency range of a new threat is the same as that of a blocked alarm, *sorry*, but GPS programming demands silence at that location, even if it's a trap. V1 will never fail you that way.

Satisfaction guaranteed: Try it for 30 days. If it doesn't satisfy for any reason, send it back for a full refund.



Mike Valentine
Radar Fanatic

© 2017 VRI

www.valentine1.com

Call toll-free 1-800-331-3030

- ☐ **Valentine One Radar Locator with Laser Detection** - $399
- ☐ **Carrying Case** - $29 ☐ **Concealed Display** - $39
- ☐ **SAVVY®** - $69 ☐ **V1connection™** - $49 ☐ **V1connection™ LE** - $49

Plus Shipping / Ohio residents add sales tax

30-Day Money-Back Guarantee

Valentine One is a registered trademark of Valentine Research, Inc.

Valentine One® RADAR LOCATOR

Valentine Research, Inc.
Department No. YB97
10280 Alliance Road
Cincinnati, Ohio 45242

Ph 513-984-8900
Fx 513-984-8976

Big Baby Steps

GENESIS'S G80 SPORT, THE BRAND'S SMALLEST SEDAN FOR NOW, WANTS TO BE A GROWN-UP. _by John Pearley Huffman

AWKWARD, TENTATIVE, AND WOBBLY, a baby takes its first step and experiences a taste of self-determination. The new 2018 G80 Sport is that first prodigy for Hyundai's post-natal Genesis division. And at 4658 pounds, it's a big baby, too.

The G80 Sport is also the brand's inaugural sports sedan. It's based on the mid-size four-door Hyundai Genesis, which, when Genesis became its own thing, magically turned into the G80 for 2017. The Sport skips the G80's 311-hp 3.8-liter V-6 and optional 420-hp 5.0-liter V-8 and exclusively adopts the twin-turbo 3.3-liter V-6 used in the larger G90 sedan. The engine is rated at 365 horsepower, but its aptitude is consistent torque production, churning out 376 pound-feet as low as 1300 rpm.

[+] Seamless thrust, neatly trimmed, good-looking, and it all comes with a long warranty at a keen price.
[–] Porky, numb, and less than nimble; more foal than colt.

Grunt is good, but this isn't a crying infant. It's a Genesis with a turbo six that emphasizes relentless power. The all-wheel-drive G80 Sport sped to 60 mph in 5.0 seconds. That's pretty quick. It's a few tenths of a second slower to 60 than the 335-hp BMW 540i that landed mid-pack in *C/D*'s recent comparison test of blown-six–powered luxury sedans ["Climb Every Mountain," May 2017]. But the G80 Sport matches the Jaguar XF S AWD to 60 mph and beats the Audi A6 3.0T Competition by 0.2 second.

Both the G80 Sport's 118.5-inch wheelbase and 196.5-inch overall length are some of the longest in the class. That allows for a roomy cockpit, but the car drives big. It's far better sorted than the deeply clumsy first-generation Hyundai Genesis of 2008, but the electrically assisted power steering is uncommunicative and the suspension is tuned for cushy cruising. With 245/40R-19 front and 275/35R-19 rear Continental ProContact TX all seasons, the G80 ran a modest 0.84 g on the skidpad. This is a sporty luxury car, not a luxurious sports car.

The G80 Sport's advantage is value. A nearly one-spec car, each G80 Sport comes with everything from a panoramic sunroof to gizmos that keep it in its lane and from ramming into things. The leather is supple, the controls are logical, Android Auto and Apple CarPlay are standard, all the seats are supportive, and the whole car is simply handsome. There's even some tasty copper-colored thread stitched into the leather upholstery as well as coppery accents on the grille and wheels that add a bit of distinction. And at $58,725, it undercuts the least expensive car in that five-car comparison by more than $13,000.

Genesis expects about 40 percent of G80 Sport buyers to opt for all-wheel drive. The rear-drive model is $2500 less expensive and weighs about 150 less pounds, but people love all-wheel-drive vehicles. And Genesis throws in a heated steering wheel.

Hyundai is committed to Genesis's baby-step evolution while leveraging its tradition of high value, including its 10-year/100,000-mile powertrain warranty. The G80 Sport is an upstart without the laurels and heritage its rivals rest upon. It may be deemed too innocuous to land any serious blows on the incumbents it's come to play with, but this baby is growing stronger. And that's adorable.

2018 Genesis G80 Sport AWD

VEHICLE TYPE: front-engine, all-wheel-drive, 5-passenger, 4-door sedan
PRICE AS TESTED: $58,725
BASE PRICE: $58,725
ENGINE TYPE: twin-turbocharged and intercooled DOHC 24-valve V-6, aluminum block and heads, direct fuel injection
DISPLACEMENT: 204 cu in, 3342 cc
POWER: 365 hp @ 6000 rpm
TORQUE: 376 lb-ft @ 1300 rpm
TRANSMISSION: 8-speed automatic with manual shifting mode

DIMENSIONS
WHEELBASE: 118.5 in
LENGTH: 196.5 in
WIDTH: 74.4 in
HEIGHT: 58.3 in
PASSENGER VOLUME: 105 cu ft
TRUNK VOLUME: 15 cu ft
CURB WEIGHT: 4658 lb

C/D Test Results

ZERO TO 60 MPH: 5.0 sec
ZERO TO 100 MPH: 12.5 sec
ZERO TO 140 MPH: 27.7 sec
ROLLING START, 5–60 MPH: 5.7 sec
1/4-MILE: 13.6 sec @ 104 mph
TOP SPEED: 149 mph (gov ltd, mfr's claim)
BRAKING, 70–0 MPH: 180 ft
ROADHOLDING, 300-FT-DIA SKIDPAD: 0.84 g

FUEL ECONOMY
EPA COMBINED/CITY/HWY: 20/17/24 mpg
***C/D* OBSERVED:** 18 mpg

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

CARS AND COFFEE

From the coolest classics to modern-day wonders, each **Cars and Coffee at M1** hosts a spectrum of metal to stir the soul of every car lover. This summer, fire up your ride and join the editors of Car and Driver at the **M1 Concourse**—the ultimate enthusiast playground in metro Detroit.

2017 Schedule: Saturdays 8:00-11:00 AM
JUNE 10 | JULY 8 | JULY 29 | AUG 5 | SEPT 23

M1 Concourse
164 SOUTH BLVD W | PONTIAC, MI

FOLLOW CAR AND DRIVER ON FACEBOOK & VISIT M1CONCOURSE.COM FOR THE LATEST CARS AND COFFEE NEWS & SCHEDULE

ELECTRIC SLIDE ▽

Driving Range

If the estimated range of Honda's new EV, the Clarity Electric, seems a little, er, limited, that's because it is. Herewith, the range estimates for the battery-electric vehicles from all the major manufacturers. (Your range may vary.*)

SMART FORTWO COUPE/CABRIO
75 MILES (EST)

BMW i3
81–114 MILES

FIAT 500e
84 MILES

HONDA CLARITY EV
89 MILES

KIA SOUL EV
93 MILES

FORD FOCUS ELECTRIC
115 MILES

HYUNDAI IONIQ EV
124 MILES

VOLKSWAGEN E-GOLF
125 MILES

NISSAN LEAF
150 MILES (EST)

CHEVROLET BOLT
238 MILES

TESLA MODEL X
238–289 MILES

TESLA MODEL S
249–335 MILES

**All figures from the EPA except where noted.*

GMC

Savana: GMC's long-running full-size van returns for 2018 with a 4.3-liter V-6 replacing the 4.8-liter V-8 that we forgot existed. That engine and the 2.8-liter turbo-diesel, which was introduced earlier this year, are paired with an eight-speed automatic. The 6.0-liter V-8 mated to a six-speed automatic continues to be offered as a "hardened engine," optimized for CNG and LPG conversions.

—

Terrain: The new GMC Terrain is a lean, mean, premium compact SUV machine—at least, in comparison to its square-shouldered predecessor. The wheelbase is down by 5.2 inches, length by 3.2, and width and height by 0.4 and 0.9 inch, respectively. Despite the overall shrinkage, the Terrain takes only a small hit on passenger legroom, losing 0.3 inch up front and 0.2 inch in back. The previously available naturally aspirated inline-four and V-6 engines have been banished to make room for a trio of turbocharged four-cylinders comprising a 170-hp 1.5-liter and a 252-hp 2.0-liter gasoline engine, plus a 137-hp 1.6-liter diesel. The gas engines are mated to a nine-speed automatic transmission; the diesel, to a six-speed automatic.

—

Yukon/XL: GM's new 10-speed-automatic transmission finds its way into the Yukon Denali, and 2018 brings a revised grille and fresh interior wood-trim options. Lesser models receive minor trim changes.

—

Minor trim changes: Acadia, Sierra 2500/3500 HD
Unchanged: Canyon, Sierra

Honda

Accord: It's time again for Honda to introduce a new generation (the 10th) of its franchise player. The 2018 Accord, which goes on sale this fall, rides on a stretched version of the Civic's platform. The Accord loses its powerful yet not wildly popular V-6 in favor of two turbocharged inline-fours. The base car will be powered by a 1.5-liter paired with a CVT. Optional will be a 2.0-liter bolted to a 10-speed automatic. Either engine can be paired with a six-speed manual. Honda also will offer an updated version of its two-motor hybrid. The coupe is no more.

—

Civic: *see test of the 306-hp Type R, page 076*
The Type R is the pointier of Honda's two-pronged approach to high-performance Civics. The other, only slightly duller one, is the Si. A late-2017 model, the new Si is available in both coupe and sedan body styles. Roughly $25,000 buys a beautifully tuned chassis; a 205-hp, turbocharged 1.5-liter four-cylinder engine; and an excellent shifter for the mandatory six-speed manual transmission. The Si brings the same value, practicality, and precise, if less rev-mad, performance of its forebears.

—

Clarity: The California-only Clarity Fuel Cell is joined this year by the Clarity Electric and the Clarity Plug-In Hybrid, turning the curiously shaped four-door into its own lineup of alt-fuelers. The Electric will be available only in California and Oregon and its 25.5-kWh lithium-ion battery pack brings a mere 89 miles of range. Honda says that the Electric fills a space in the market for a large, relatively inexpensive EV and that the car could eventually be sold elsewhere if there's enough demand. We reckon the limited range is going to lead to severely limited demand, though. The infinitely more practical plug-in hybrid goes on sale nationwide by the end of this year. It pairs an Atkinson-cycle 1.5-liter inline-four with a 181-hp electric motor to deliver an expected overall range of 330-plus miles. The 17.0-kWh battery pack provides an electric-only range of 42 miles.

—

Odyssey: *see comparison test, page 110*

—

Minor trim changes: Fit
Unchanged: CR-V, HR-V, Pilot, Ridgeline

Hyundai

Accent: All-new for '18, Hyundai's runt gets styling that loudly echoes the larger Elantra's. The wheelbase moves out 0.4 inch and the car has a wider stance. The Accent is powered exclusively by a direct-injection 1.6-liter inline-four, making 132 horsepower and 119 pound-

Honda Accord ▽

feet of torque. We expect the EPA highway figure to be just short of 40 mpg with the six-speed manual transmission (a six-speed auto is optional). It should start around $16,000.

—

Elantra: Fans of Euro-style hatchbacks are getting some more love with the Elantra GT, a two-box pulled from Hyundai's European catalog. A 162-hp 2.0-liter inline-four powers the base model, while a 201-hp turbocharged 1.6-liter propels the GT Sport, which also has a multilink rear suspension in place of the base torsion beam. A six-speed stick is standard, but buyers can opt for a six-speed auto on the GT or a seven-speed dual-clutch on the GT Sport. At 25 cubic feet, the cargo area's size slots between that of the smaller Volkswagen Golf and the larger Honda Civic hatchback. Prices should start around $20,000.

—

Ioniq: A new plug-in hybrid will round out the Ioniq lineup next year, joining the current electric and hybrid.

—

Kona: Hyundai's new subcompact crossover marks the debut of an all-new platform set to slide under a number of other vehicles. This arrestingly styled hatchback roller bag goes up against segment stalwarts such as the Honda HR-V and the Jeep Renegade. The base Kona front-driver, starting around $19,000, comes with a 147-hp 2.0-liter inline-four and six-speed automatic, front struts, and a rear torsion-beam suspension, while the all-wheel-drive version gets multilinks in back. The optional turbo 1.6-liter inline-four makes 175 horsepower and can be had with either driveline and a seven-speed dual-clutch auto. A fully electric version with a range of 200-plus miles may be zapping its way to us soon.

—

Sonata: Mechanical changes include recalibrated steering and suspension tweaks to liven up the handling, no doubt the work of Albert Biermann, whom Hyundai lured away from BMW M three years ago. The hood, front fenders, and trunk are also new, as are the headlights, taillights, and bumpers. An eight-speed automatic graces 2.0-liter models.

—

Veloster: The Veloster is expected to be the first vehicle to wear Hyundai's new N performance subbrand badge in the U.S. This bizarre but clever Elantra-based sports coupe will reappear bearing the same asymmetrical door design as before, with one on the driver's side and two on the passenger's side, but with overhauled styling on a new platform. Mr. Biermann also had a hand in this one, so bet on a vast improvement in the Veloster's handling over the original's. It's expected the N version will make up to 250 horsepower from a turbo 2.0-liter inline-four.

—

Minor trim changes: Tucson
Unchanged: Santa Fe/Sport
Dead: Azera

Infiniti

Q50: Infiniti is giving its top seller a mild visual refresh for the 2018 model year. But the hottest models, the twin-turbocharged 3.0t Sport and 400-hp Red Sport 400, get their own more aggressive fascias to set them apart from turbo inline-four and hybrid V-6 models.

—

QX50: The current 2017 model will continue to sell until the all-new 2019 model launches early next year. Infiniti isn't letting a lot out on this new compact luxury SUV, but we know it will use a transverse-engine architecture. It'll be powered by a 268-hp turbocharged inline-four with a variable compression ratio—ranging from 8.0:1 to 14.0:1, the first production engine of its kind—with the further capability of running the more efficient Miller cycle. This engine may make or break the model. It has many more moving parts than a standard inline-four, but if it proves reliable, the claimed 27 percent gain in efficiency over a V-6 of similar output could pay showroom dividends.

—

QX80: An updated QX80, inspired by the QX80 Monograph concept from this year's New York show, will hit dealers before the end of the year. As with the smaller QX50, Infiniti isn't saying much. Expect new fascias and a juggling of equipment. Mechanical updates should be limited to calibrations for this massive three-row SUV.

—

Minor trim changes: Q60, QX60
Unchanged: Q70, QX30
Dead: QX70

△ GMC Terrain, Infiniti Q50 & Hyundai Kona

Jaguar

E-Pace: A new compact crossover, the E-Pace slots into the lineup below the F-Pace and will be powered by Jaguar's family of Ingenium four-cylinders. Based on the platform underlying the Land Rover Range Rover Evoque, the E-Pace should start in the mid-$30,000s and rise toward $50,000. When it goes on sale in about a year, it may actually be a 2019 model.

—

F-Pace: In addition to the newly available 180-hp turbo-diesel, the F-Pace gets a gas-burning, turbocharged 2.0-liter four that can be had with either 247 or 296 horsepower. The 380-hp supercharged V-6 is still available.

—

F-type: A mid-cycle refresh for 2018 includes the 296-hp turbo inline-four. A 400 Sport model has a 400-hp version of the supercharged 3.0-liter V-6 as well as special trim. Supercharged V-6s, making 340 and 380 horses, are still available, as are 550- and 575-hp supercharged V-8s.

—

I-Pace: The production version of Jaguar's electric concept will go on sale in late 2018. It is expected to look a lot like the low-roof SUV that Jaguar unveiled at the 2016 Los Angeles show. Figure more than 200 miles of range and a six-figure price tag.

—

XE: A 180-hp turbo-diesel four and a gas-powered 247-hp 2.0-liter arrived earlier this year and will be joined by a 296-hp version of the 2.0-liter four this fall. For those in need of more power, Jaguar offers a new 380-hp model called the XE S. At some later date in 2018, the XE SV Project 8 will go on sale to compete with the BMW M3 and its ilk. The Project 8 gets a supercharged 5.0-liter V-8 with 592 stallions.

—

XF: Well, this is highly out of the norm: This winter, Jaguar will begin selling XF Sportbrakes (read: wagons) in the U.S. This handsome, Mercedes-Benz-E400-wagon competitor is only available with a 380-hp supercharged V-6 and all-wheel drive. At $71,445, it'll be more expensive than its German counterpart but offer about 70 cubic feet of max cargo space and should, says Jaguar, get you to 60 mph in 5.3 seconds. In less exciting news, Jag's 247-hp turbo four is now available in the XF sedan. It'll be joined by a 296-hp iteration of that engine early next year. For the fuel-conscious torque lover, check out Jaguar's base 180-hp turbo-diesel.

—

Minor trim changes: XJ

TURBO KICKED IN, YO!

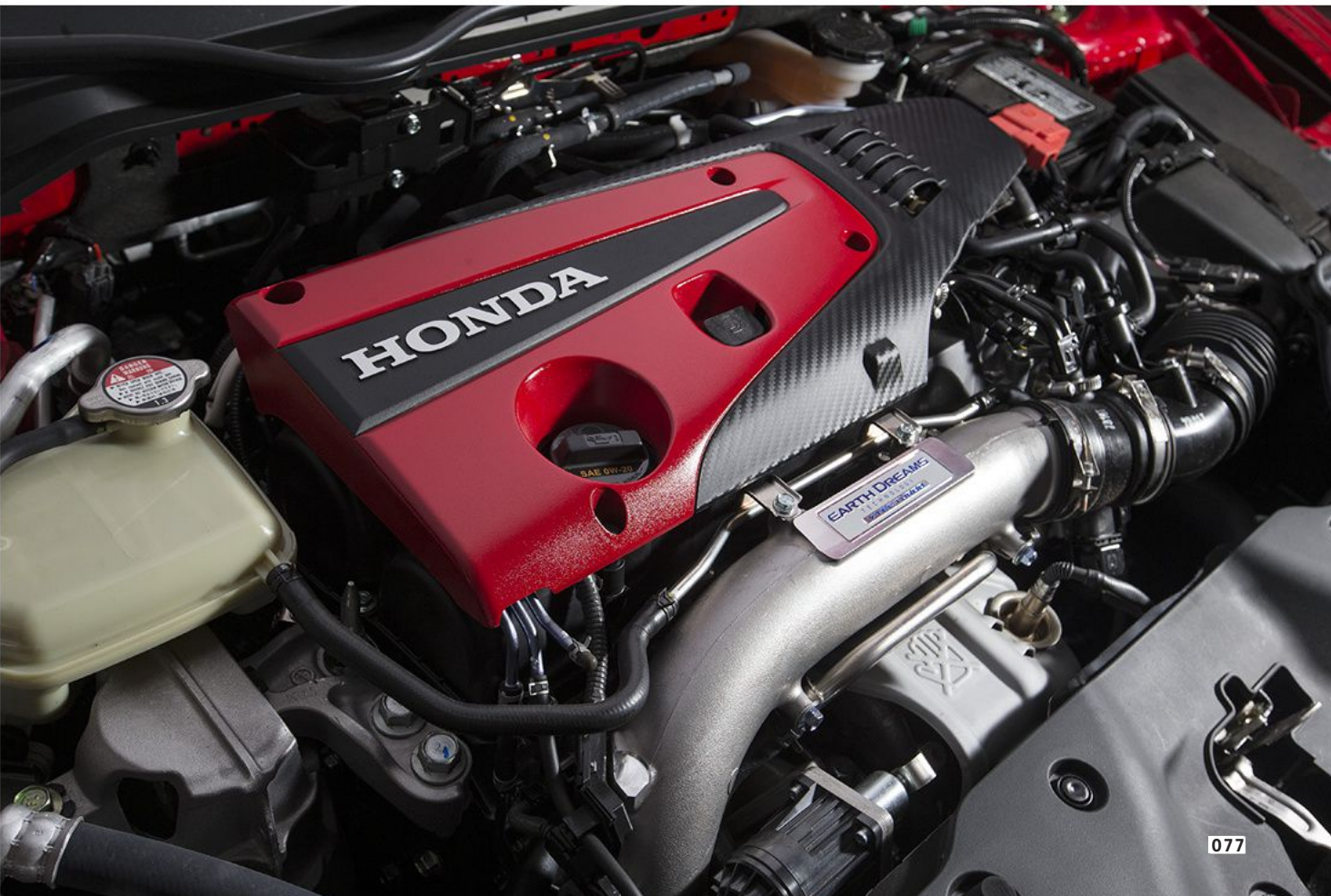
The Honda Civic Type R only looks like a tragic tuner car. _by Daniel Pund

We've already paid our respects to the dearly departed high-revving Honda we once knew—that bonkers, VTEC-kicked-in-yo, skinny-legged whippersnapper of yore. The fog of nostalgia tends to make you forget that, in truth, he wasn't always easy to live with, alternately mopey and hopped up on Adderall as he was.

We've begun to move on, in part because we have no choice. The Acura NSX is a hybrid now. The Civic Si is turbocharged. And we haven't revved an S2000 to the stratosphere for too many years.

This all brings us to the 2017 Civic Type R. The casual car enthusiast in America will remember only that there was once an Acura Integra with that suffix, a loud, berserk, frenetic, and spectacular thing that lasted only a short time many years ago. But those peering at this story from beneath the flat brim of a Type R cap will know that there have been four generations of Civic Type Rs prior to the car for which we gather today. All those screamers were kept from our shores.

photography by JOHN ROE, *typography by* NATHAN YODER


HONDA
EARTH DREAMS

But as Honda slowly comes out of its product malaise, the company decided that bringing over the Type R now—indeed, designing it from the outset with the U.S. market in mind—would help bolster its once unassailable reputation for producing precise little budget funmobiles.

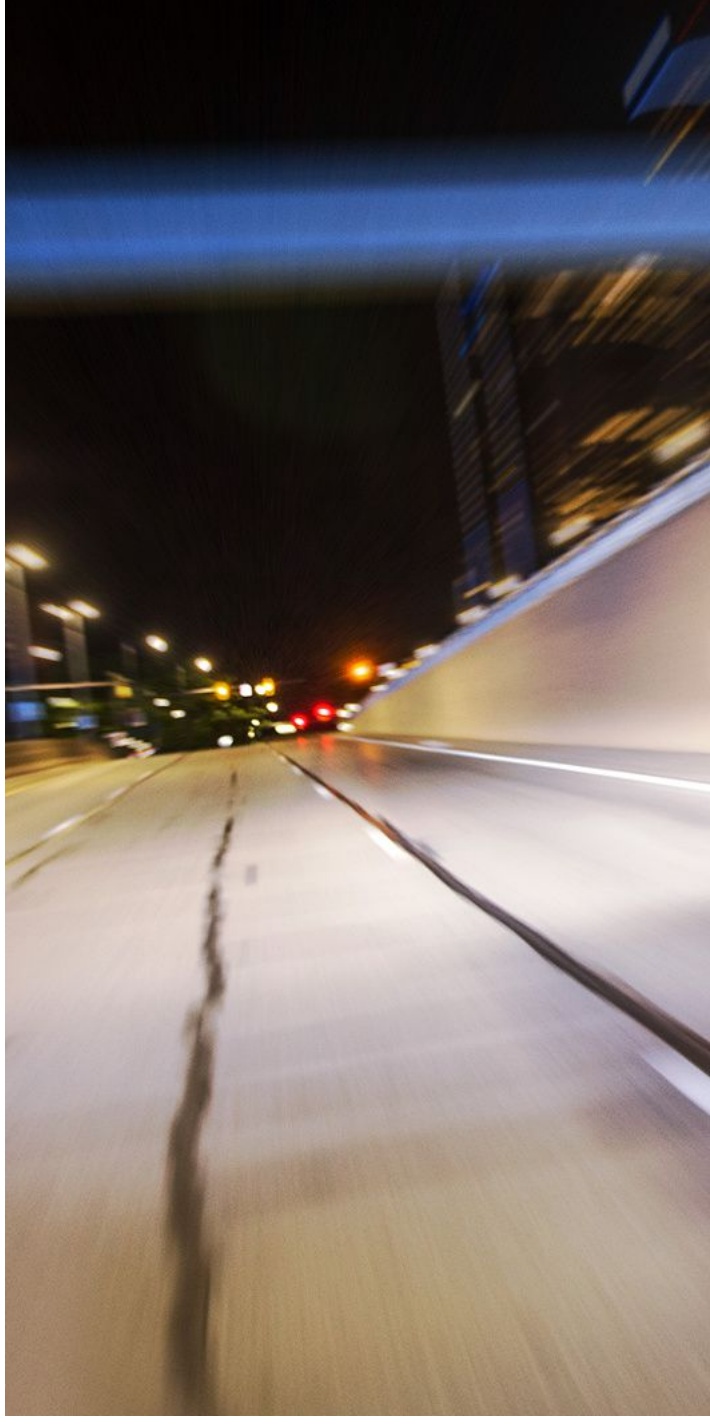
The 2017 model is a different car than what enthusiasts lusted for lo these many years. You wouldn't know that from looking at it, though. On top of the already nutty Civic hatchback design, Honda adds all manner of wings and splitters and vortex generators and scoops until the exterior resembles an unkempt knife drawer. It looks hyper-Japanese in that anime way. It looks more than a bit juvenile. It looks like it would be basically undrivable. One member of our senior staff refuses to be seen in it. But Honda says all the body addenda are functional, reducing lift, smoothing air over the tires, generating—um—vortexes, and, in the case of the hood scoop, cooling the engine.

Ah, the engine. This turbocharged, direct-injected 2.0-liter inline-four is at the core of the Type R's break from old-style Honda performance. Fed with up to 22.8 psi of boost, this engine cranks out 306 horsepower at 6500 rpm and 295 pound-feet of torque from 2500 to 4500 rpm, and it revs to a mere 7000 rpm, measly by historical hot-Honda standards. This is the type of engine that is making us all lazy drivers. You don't have to work for the power here. There's no waiting for the VTEC to kick in (although the engine does have variable valve-timing and lift). Much of the time you needn't bother downshifting; the engine pulls strongly at low revs where an earlier Honda performance engine would leave you hanging. Partisans and purists beware: This boosted motor delivers its power in the form of a fat bulge of thrust in the lower half of the tach's sweep, more like that of other modern 2.0-liter turbos than the steep, stepped power delivery of old Honda VTEC engines.

Now would be as good a time as any to explain the Type R's odd center-exit exhaust, which is certain to become one of the car's trademark details. It's not just for styling; each of the three pipes does something. The fat outer two are the primary exhaust routes. The smaller center pipe connects to a resonator tucked just behind the bumper cover. This resonator also attaches to the outer pipes. At relatively low engine speeds, exhaust gas flows through the outer pipes and the resonator/center pipe, which adds some raspiness to the engine's note. At high engine speeds, exhaust air flows almost exclusively through the main pipes, bypassing the resonator and reducing, says Honda, any booming noises. This is done without butterfly valves in the exhaust—pressure alone effects the change. The end result is somewhat less fascinating than the means by which it is achieved. At low rpm there is a decent little rasp, but in the engine's upper reaches that note is replaced by a bit of a drone and a rush of whooshing exhaust air going through the pipes. The combination of those sounds at full throttle registers more than 90 decibels on our sound-level meter. It's not an offensive aural performance, but we might have liked something a little more thrilling or at least less strange in this zestiest of Civics.

This is, however, a great performance engine. The 2.0-liter pulls the 3111-pound Type R without hiccup or noticeable turbo lag. The trip to 60 mph took an impressively brief 4.9 seconds. There might have been another tenth to be had but Honda limits revs to 3500 when the car is at a standstill, requiring a careful clutch slip to get the most out of the launch. That an owner won't be able to drop the clutch near redline is probably not the worst thing, though.

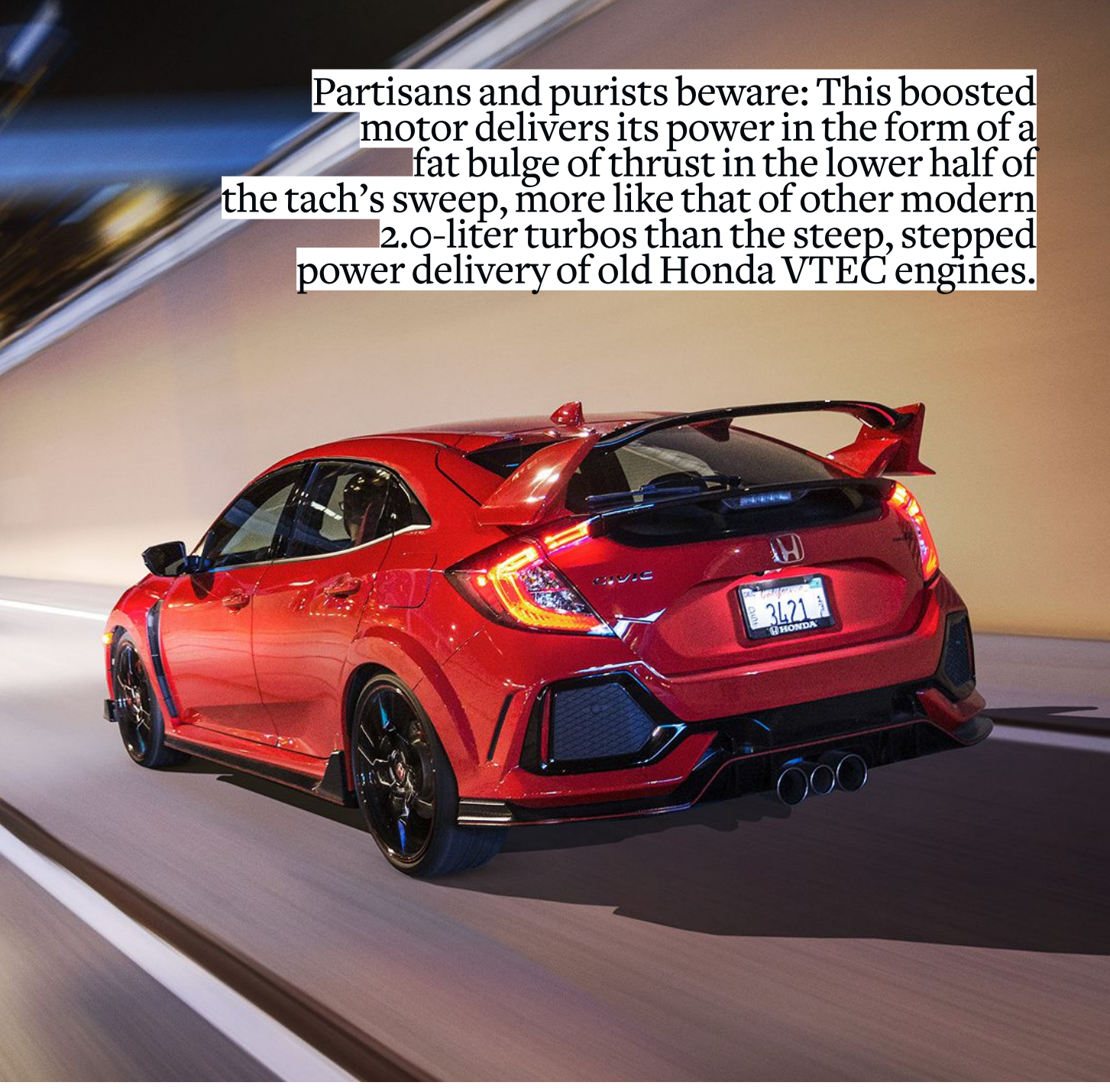
The engine's lightweight, single-mass flywheel meshes with a six-speed manual transaxle that incorporates a helical limited-slip differential and Honda's first application of automatic rev matching for downshifts. Drivers can shut off the rev matching if they'd like to work on their heel-and-toe technique. But the system works beautifully, and we were inclined to just leave it on. Shifter feel is precisely what we've come to expect from Honda: absolute precision.



Not everyone wants a subtle, attractive car. Honda clearly understands this. Above, the R attacking the Detroit air with an F1 grid's worth of aero addenda.

The chassis's performance is just as pleasant as the engine's. With the Type R, Honda is going up against primarily all-wheel-drive competition in the Ford Focus RS, the Subaru WRX STI, and the Volkswagen Golf R. The Honda has to dump all of its substantial torque through only its front wheels. That should result in Dodge Caliber SRT4 levels of torque steer, but it doesn't. Instead of limiting torque or deadening the steering to prevent or mask torque steer, Honda went for a mechanical solution. Out goes the conventional front-axle strut suspension of standard Civics. In its place, Honda fits a more complex (and no doubt more expensive) arrangement similar to Ford's RevoKnuckle front suspension that was underneath the previous-generation front-wheel-drive Focus RS, which never made

Partisans and purists beware: This boosted motor delivers its power in the form of a fat bulge of thrust in the lower half of the tach's sweep, more like that of other modern 2.0-liter turbos than the steep, stepped power delivery of old Honda VTEC engines.



it to the States. The same basic idea is at work in Buick's HiPer Strut arrangement. Yes, Buick. All these variations on the strut do essentially the same thing: mechanically separate steering and suspension functions while reducing spindle length and scrub radius (both dimensions are key factors of torque steer). It's effective and doesn't feel unnatural in operation, as do some other torque-steer-mitigation systems. This suspension is 24 pounds heavier than the standard setup, but it's mass well spent.

The rear suspension remains the same multilink arrangement that's on all current Civics, but it uses beefier links for increased stiffness. This being a car with a capital R at the end of its name, the springs are stiffer than a standard Civic's by a seemingly crazy 200 percent up front and 160 percent in the rear. The anti-roll bars are 170 percent stiffer up front and 240 percent in back. Add in stiffer bushings all around and you have a recipe for the worst ride quality this side of pretty much every tuner car we've ever driven. We winced preemptively before we even got into the driver's seat.

[+] Powerful, tractable engine; precise steering; posts ridiculous numbers; surprisingly decent ride.
[–] Could stand to have a more thrilling exhaust note, it looks like a 2017 Honda Civic Type R.

But the ride quality is actually quite good. It's firm, but even our sometimes unforgiving asses would willingly drive a Type R every day. The car never reminds you that it's the most highly tuned version of a lesser car. Helping in this regard are electronically adjustable dampers that can be switched in combination with the three driving modes: comfort, sport, and plus R. The vehicle defaults to sport, which seems appropriate. There's a subtle but meaningful difference among the three settings, but overall the ride-and-handling balance is kept within a pretty tight spectrum. It

So short are the sidewalls of the 30-series tires that they appear to have no air cavity whatsoever. The R stops, steers, and shifts brilliantly.

never goes soft, but also never goes into spouse-annoying stiffness.

The variable-ratio steering rack uses beefed-up tie-rod ends and a thicker steering shaft. The amount of steering assistance also varies with the driving-mode selection, but again the differences in the three modes are not dramatic. Any of the three settings of this electrically assisted system yields weighty effort, excellent response and fidelity, and even a touch of feel. Right on-center, the steering ratio is similar to that of a standard Civic. But as the steering quickens off-center, the Type R's ratio is actually slower than that of the regular Civic, for improved high-speed stability. The ratio goes from 14.9:1 on-center to 11.7:1 at full lock, if you must know the numbers. Honda apparently knew what it was doing since you don't once think about the steering ratio while driving the Type R. It simply feels natural. Natural also describes the Type R's handling. It doesn't feel like an overtired economy car. This front-driver rotates easily, transitions left and right with precision and stability, and doesn't understeer unless it's egregiously provoked with excessive speed.

The Type R wears Continental SportContact 6 summer tires, sized 245/30ZR-20, mounted on 8.5-by-20-inch cast-aluminum wheels front and rear. Thirty-series sidewalls were another reason we worried ourselves unnecessarily about ride quality. Impact harshness is less than it really has any right to be. And judging by the sports-car-shaming 1.02 g's we pulled on the skidpad, these tires are plenty sticky. But they will cost more than $300 apiece to replace. The big, relatively heavy wheels accommodate the trick front suspension and the 13.8-inch cross-drilled brake rotors with four-piston Brembo calipers on the front axle. Single-piston sliding calipers grab the rear rotors. Thanks, perhaps, to brake-booster modifications for the Type R, the pedal feel is excellent. And we certainly have no complaints about the R's braking performance. It stops from 70 mph in 142 feet. That, friends, is deep into Porsche and Corvette territory.

The Type R comes with manually adjustable sport seats up front that are specific to the model. They carry thick bolsters and integrated headrests and are comfortable and secure whether you're at the track or on the expressway. By our measure, they are a million times more comfortable than the Recaros that Ford bolts into its high-performance Focuses. Because visual subtlety is not really the Type R's bag, these seats are only available covered in bright-red cloth, no matter the car's paint color.

And the Type R is no stripped-down track-day car. All Type Rs are considered Touring models (in the standard Civic parlance), meaning they come with all the performance stuff noted above but also dual-zone automatic climate control, proximity entry with push-button start, LED headlights, navigation, a 12-speaker audio system, and Android Auto and Apple CarPlay compatibility. All of it will set you back $34,775. That's about $2000 to $6000 less than its competitors from Subaru, Ford, and VW—or between roughly $7250 and $9100 pricier than the less powerful Subaru WRX, Ford Focus ST, and VW GTI.

In all but appearance, the Civic Type R is a sophisticated package that manages to pull remarkable numbers at the track without punishing its driver on the street. It's not the frenetic and furious vehicle that it first presents itself as. It's not quite as rawboned a Type R as some have pined for. But it's alive. It's here. And it's good.

2017 Honda Civic Type R

VEHICLE TYPE: front-engine, front-wheel-drive, 4-passenger, 4-door hatchback
PRICE AS TESTED: $34,775
BASE PRICE: $34,775
ENGINE TYPE: turbocharged and intercoooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection
DISPLACEMENT: 122 cu in, 1996 cc
POWER: 306 hp @ 6500 rpm
TORQUE: 295 lb-ft @ 2500 rpm
TRANSMISSION: 6-speed manual

DIMENSIONS

WHEELBASE: 106.3 in
LENGTH: 179.4 in
WIDTH: 73.9 in
HEIGHT: 56.5 in
PASSENGER VOLUME: 97 cu ft
CARGO VOLUME: 26 cu ft
CURB WEIGHT: 3111 lb

C/D Test Results

ZERO TO 60 MPH: 4.9 sec
ZERO TO 100 MPH: 11.5 sec
ZERO TO 140 MPH: 28.5 sec
ROLLING START, 5–60 MPH: 5.8 sec
1/4-MILE: 13.5 sec @ 108 mph
TOP SPEED: 169 mph (drag limited, mfr's claim)
BRAKING, 70–0 MPH: 142 ft
ROADHOLDING, 300-FT-DIA SKIDPAD: 1.02 g

FUEL ECONOMY

EPA COMBINED/CITY/HWY: 25/22/28 mpg
***C/D* OBSERVED:** 23 mpg

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

THE DRIVER'S SEAT
Promotions Products Experience

LOGAN LUCKY IN THEATERS 8/18

From the director of the *Ocean's* trilogy comes a NASCAR heist comedy about brothers Jimmy (Channing Tatum) and Clyde Logan (Adam Driver), who conspire with Joe Bang (Daniel Craig) to pull off an elaborate robbery during the legendary Coca-Cola 600.

loganluckymovie.com

YOU COULD SAVE WITH GEICO

Did you know that GEICO is the second-largest private-passenger insurance company in America? With a 97% customer satisfaction rating, it's easy to see why over 15 million drivers choose GEICO.

geico.com

Some discounts, coverages, payment plans and features are not available in all states or all GEICO companies. Customer satisfaction based on an independent study conducted by Alan Newman Research, 2016. GEICO is a registered service mark of Government Employees Insurance Company, Washington, D.C. 20076; a Berkshire Hathaway Inc. subsidiary. © 2017 GEICO

LIST PRICE $795 - 75% OFF
NOW ONLY $199 - you save $596

DANIEL STEIGER
30 DAY MONEY-BACK GUARANTEE

THE PHANTOM TWO-TONE
'PHANTASTIC VALUE PHENOMENAL QUALITY'

Phantom Watch: $199 - Oxford Ring: $129 - Set Price: $289
(Save An Extra $39) + S&P

Engineered from premium grade 316L steel with a 18k yellow gold plated two-tone detailing. Powered by a Precision Chronograph Movement featuring 24 Hour, Duel Stop Watch sub-dials and date window Now available direct from the manufacturer at the astonishing low price of $199 - SAVE $596 on the retail price of $795. That's 75% OFF.

Match this amazing watch with the Oxford's Men's Ring. Solid 925 sterling silver with 18k yellow gold plated highlights and an astounding, brilliant cut 3 carat flawless created diamond, this ring is guaranteed to impress. SAVE over $800 against RRP on the watch and ring set.

ORDER TODAY! TOLL FREE 24/7 1-800 733 8463
Simply call our toll free number and quote promo code CD78TT or order online at www.timepiecesusa.com/cd78tt and enter promo code.

size 9 | size 10 | size 11 | size 12 | size 13 | size 14

Timepieces International Inc, 12800 N.W. South River Drive, Medley, FL 33178

Laser Measured FloorLiner™

- **Accurately and completely lines the interior carpet**
- **Material provides soft touch top, rigid core strength and bottom surface friction**

Available in Black, Tan and Grey
(Cocoa Available for Select Applications)

Accessories Available for

Acura · Audi · BMW · Buick · Cadillac · Chevrolet · Chrysler · Dodge · Ferrari · Ford · GMC · Honda · Hummer · Hyundai · Infiniti
Isuzu · Jeep · Kia · Land Rover · Lexus · Lincoln · Maserati · Mazda · Mercedes-Benz · Mercury · Mini · Mitsubishi · Nissan
Oldsmobile · Plymouth · Pontiac · Porsche · Saab · Saturn · Scion · Subaru · Suzuki · Toyota · Volkswagen · Volvo · and more!

Order Now: 800-441-6287

American Customers
WeatherTech.com

Canadian Customers
WeatherTech.ca

European Customers
WeatherTech.eu

© 2017 by MacNeil IP LLC

All-Weather Floor Mats

- Deeply sculpted channels designed to trap water, road salt, mud and sand
- Will not curl, crack or harden regardless of temperature

Available in Black, Tan and Grey
(Cocoa Available for Select Applications)

WeatherTech®
American Manufacturing *Done Right*™

Cargo/Trunk Liner

- **Complete trunk and cargo area protection**
- **Digitally designed for each application**
- **Remains flexible under temperature extremes**

Available in Black, Tan and Grey
(Cocoa Available for Select Applications)

Accessories Available for

Acura · Audi · BMW · Buick · Cadillac · Chevrolet · Chrysler · Dodge · Ferrari · Ford · GMC · Honda · Hummer · Hyundai · Infiniti
Isuzu · Jeep · Kia · Land Rover · Lexus · Lincoln · Maserati · Mazda · Mercedes-Benz · Mercury · Mini · Mitsubishi · Nissan
Oldsmobile · Plymouth · Pontiac · Porsche · Saab · Saturn · Scion · Subaru · Suzuki · Toyota · Volkswagen · Volvo · and more!

Order Now: 800-441-6287

American Customers
WeatherTech.com

Canadian Customers
WeatherTech.ca

European Customers
WeatherTech.eu

© 2017 by MacNeil IP LLC

No-Drill MudFlaps

Custom Built to Follow the
Contours of Your Vehicle

QuickTurn™ Fastening System Requires No Drilling

- **Mounts-In-Minutes™**
- **Installs without tire/wheel removal**
- **No drilling into the vehicle's fragile metal surface**

Available for trucks and SUVs

WeatherTech®
American Manufacturing *Done Right™*

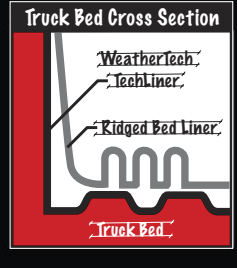
Side Window Deflectors

Designed and Engineered in USA - Handcrafted in Germany

- Sleek, low profile design
- Reduces wind noise and allows interior heat to escape

TechLiner®

- Flexible and durable
- No messy sprays or drilling needed
- 100% recyclable and odorless material
- Chemical and UV resistant



TechLiner® also works well under rigid bed liners to protect against paint wear

Accessories Available for

Acura · Audi · BMW · Buick · Cadillac · Chevrolet · Chrysler · Dodge · Ferrari · Ford · GMC · Honda · Hummer · Hyundai · Infiniti Isuzu · Jeep · Kia · Land Rover · Lexus · Lincoln · Maserati · Mazda · Mercedes-Benz · Mercury · Mini · Mitsubishi · Nissan Oldsmobile · Plymouth · Pontiac · Porsche · Saab · Saturn · Scion · Subaru · Suzuki · Toyota · Volkswagen · Volvo · and more!

Order Now: 800-441-6287

American Customers
WeatherTech.com

Canadian Customers
WeatherTech.ca

European Customers
WeatherTech.eu

© 2017 by MacNeil IP LLC

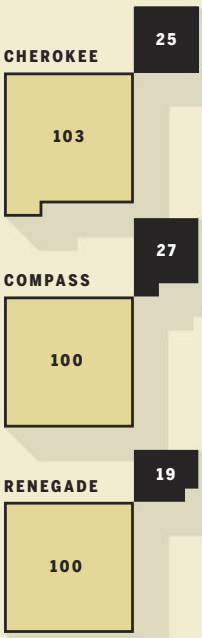
CargoTech®
Cargo Containment System
Super grippy underside helps keep cargo in place
Works with WeatherTech® AVM® Cargo Mat, Cargo Liner or existing vehicle carpet or flooring

WeatherTech®
American Manufacturing *Done Right*™

CUBES ▽

Jeep Compactor

With the introduction of the redesigned Compass, Jeep now has three vehicles crowding into the compact-crossover segment.



Jeep

Compass: The new-for-2017 Compass, which replaces both its dumpy predecessor and its Patriot platform-mate, receives few changes for its first full year in production. Slotting between the Renegade mini-ute and the marginally larger Cherokee, the Compass is almost as capacious as the latter. Power comes from a 180-hp 2.4-liter inline-four, and there are two all-wheel-drive systems, one with a low range. Front-drivers get either a six-speed manual or automatic gearbox, while all-wheel-drive models use a six-speed stick or a nine-speed auto. Prices start around $22,000, with Trailhawk off-road versions nearing $30,000.

—

Grand Cherokee: Other than some trim changes, the news here is the arrival of the Trackhawk edition with a 707-hp V-8, an all-wheel-drive system fortified with depleted uranium or something, and an expected price tag around $80,000. The supercharged engine's extra mass necessitated a lightly revised suspension versus the 475-hp SRT model's setup, as well as larger Brembo brakes. An eight-speed automatic is the only transmission. Exterior giveaways include yellow brake calipers, quad exhaust outlets, and Trackhawk-specific 20-inch wheels, while a 200-mph speedometer graces the cabin. Jeep says the ute can hit 60 mph in 3.5 seconds and tow up to 7200 pounds, just not at the same time.

—

Wrangler: Jeep is coy on specifics, but we know the new JL-generation Wrangler will make its debut this fall before going on sale in early 2018. The existing 4x4's body-on-frame and solid-axle construction will largely carry over, yet with more lightweight bodywork and a contemporary cabin. The current 3.6-liter V-6 is expected to launch with manual and automatic transmissions. A gasoline turbocharged four-cylinder, a diesel, and even hybrid powertrains are said to be coming later. Reports indicate the long-awaited pickup variant should join the lineup about a year after the release of the standard two- and four-door models. Production of the current JK Wrangler, with a sprinkling of updates, will overlap the new truck's for part of 2018.

—

Minor trim changes: Cherokee, Renegade
Dead: Patriot

Kia Stonic △

Kia

Niro: A plug-in version of Kia's hybrid wagon pairs a 1.6-liter inline-four with an 8.9-kWh lithium-polymer battery pack and an electric motor-generator. The company claims the plug-in Niro can deliver up to 34 miles of electric-only driving. A GPS-linked driver-coaching system advises the captain when to brake and coast for maximum range, and where to recharge if on a longer journey.

—

Rio: Kia's new styling direction wipes off the silly grin and gives the Rio subcompact a more serious face. Arriving this fall, Kia's littlest sedan gets Android Auto and Apple CarPlay capability among its optional electronics upgrades, which include automated emergency braking. A 130-hp 1.6-liter inline-four does the pulling. The Rio hatchback will appear a little sooner than the sedan and be oriented toward sportier drivers with its optional two-tone leather interior.

—

Stinger: *See first drive, page 090*

—

Stonic: A portmanteau of "speedy" and "tonic"—what, you'd prefer Kia be yet another brand that gives its cars part numbers instead of names?—Kia's version of the Hyundai Kona mini crossover will likely arrive in 2018. Compared with the spacey Kona, Kia's own B-class EUV (eensy utility vehicle) is styled a little more conventionally, though it's said to offer a two-tone paint scheme with up to 20 available combinations. At least for Europe, the engines are small, including a turbocharged 1.0-liter inline-three and a free-breathing 1.4-liter four-cylinder, as well as a 1.6-liter diesel. It's likely we'll get the 1.4 or the Rio's 130-hp 1.6-liter gasoline engine [see above]. Given the competition, including the Honda HR-V and the Toyota C-HR, expect the Stonic to start around $19,000.

—

Minor trim changes: Cadenza, Forte/Forte5, K900, Optima/hybrid, Sedona, Sorento, Soul/EV, Sportage

Jeep Grand Cherokee Trackhawk ▽

Trackhawk photograph by ANDREW TRAHAN

CITY. SLICKER.

Zip through downtown. That tight alley. And into that parking spot. Introducing the brand-new 2017 Nissan Rogue Sport. The newest member of the Rogue family, tailored for the hustle.

TAKE ON TODAY

THE BRAND-NEW 2017 ROGUE SPORT™

THE ROGUE FAMILY

The 2017 Rogue™
starting at just $23,820

The brand-new 2017 Rogue Sport™
starting at just $21,420

As Shown 2017 Rogue S FWD Starting MSRP $23,820. As Shown $27,990 MSRP 2017 Rogue Sport SL AWD, other optional equipment shown, see dealer for details. 2017 Rogue Sport S FWD Starting MSRP $21,420. Price is Manufacturer's Suggested Retail Price (MSRP). MSRP excludes tax, title, license, options and destination charge. Dealer sets actual price. See dealer for details. Always wear your seat belt, and please don't drink and drive. ©2017 Nissan North America, Inc.

NISSAN

Innovation that excites

Incredibly Well Stung

THE KIA STINGER IS A SATISFYING NICHE FILLER FROM AN UNLIKELY SOURCE. _by Aaron Robinson

▽

"JENNY, ICH LIEBE DICH!" The giant scrawl of graffiti flashed past the straining Kia Stinger on a wall somewhere around the Metzgesfeld bit of the Nürburgring, part of the endless spaghetti of scribble that adorns every inch of this crazy track. Jenny, wherever you are, we sure hope you appreciate the trouble your homeboy went to.

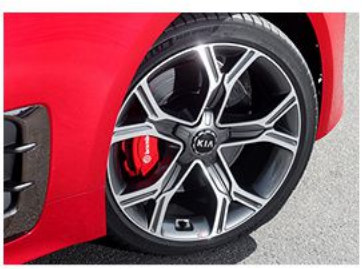
Like Jenny's mensch, the Kia Stinger is a little ballsy, from the cartoon name to the swagger in its styling to the hatchback body to the rear-drive platform. So is the market mission, which seems such a stark disconnect from the cheap and chipper Kia defined by its runaway best seller, the Soul. The $33,000 to $48,000 Stinger (we're extrapolating, based on hints dropped by the company) takes Kia into new realms dominated by serious players such as the Lexus IS and the BMW 3-series.

What is Kia offering? A big car in its price class, for starters. The Stinger's 114.4-inch wheelbase is almost four inches longer than that of a BMW 3-series and just 1.7 inches shorter than a Porsche Panamera's. The back seat is cross-your-legs roomy, but the curb weights come in a little high against the competition, ranging from around 3650 pounds for a base turbo 2.0-liter inline-four to 3900 for a loaded example with a twin-turbocharged 3.3-liter V-6 and all-wheel drive.

This Kia also dares to be different, with a hatchback body and seats that are hailed for their low positioning (for better handling via a low center of gravity, of course). Australian journalists who were at the media drive told us that their nation is hotly anticipating the Stinger, which is seen as a car that picks up the thread of the late Ford Falcon and the soon-to-disappear Holden Commodore, both large, rear-drive sedans.

Well, outside of that small, strange market, the Stinger, which Kia calls the CK internally, will be greeted mainly as an amusing anomaly from an unexpected source. Chief designer Gregory Guillaume told us that the Stinger's styling inspiration came from his love of the grand GTs he saw as a boy, especially the Maserati Ghibli, bombing the Autoroute du Soleil down to the South of France. "We need people looking at our cars with their hearts,

Near-inconceivable fact: The same company that built the sad Sephia and flabby K900 has constructed this very competent Stinger.



not their brains," he says. You have to squint to see it, but okay. Such dreaminess is what happens when Koreans go out and hire Europeans and give them free rein to design and develop their cars.

This and the Nürburgring, because besides Guillaume, whom Kia pinched from Volkswagen in 2005, the Hyundai-Kia group three years ago also lured Albert Biermann away from what must be one of the best gigs in the industry, running BMW's M GmbH. Biermann, who is clearly enjoying his status change from just another German pulling the oars at BMW to senior Jedi Master at Kia, says his first job on this project was trying to "match the dynamic experience with the emotional appearance" of the Stinger.

Kia was so hot to show off the fruit of its European HR initiatives that it invited journalists to the 'Ring to sample the sportiest Stinger, the GT, on the same 12.9-mile Nordschleife where it did some of the development work. The only problem: Because of all the schlepping incurred by some overly complex logistics, we got only three laps—two in a rear-drive Stinger GT and one in an all-wheel-drive model—behind a lead car driven at ten-tenths from the go signal. Which is akin to being asked to make intelligent comments about a car's ride and handling after spending 34 minutes underwater with it.

What we can say is that the Stinger GT, which trades the base 255-hp, turbo 2.0-liter four for a 365-hp, twin-turbo 3.3-liter V-6, feels like a car built by people who like cars, and it's not a complete mess when confronted with a track. Quite the opposite, in fact. Considering this comes from Kia, whose previous rear-drive development work produced the clumsy K900, this is big news.

Biermann, who dismisses rear steering and variable-ratio steering as "all that fancy stuff," says he was after a "good emotion-per-dollar ratio." He and his boys did their best to shrink the big Stinger at speed, laboring over bushing choices and control-arm attachment points in the front-strut and rear-multilink suspension, all to give the car lively, reactive steering and, on the optional 19-inch wheels with their staggered Michelin Pilot Sport 4 S tires, tenacious grip.

[+] Alluring fastback shape, big-car space, promising handling. [–] A little heavy, is Kia ready to be a luxury brand?

There is indeed nothing fancy here, the vital components such as dampers and the steering rack sourced from Mando, Hyundai-Kia's normal Korean supplier. Blessed with a stiff structure, the benefits of which Kia has only recently discovered, the Stinger likes to turn even if the steering is weighted a bit light, and it rewards your decision to take it to a German megatrack with precise path control and neutral handling that pushes into understeer none too early.

Well, certainly for the rear-drive version, which can be steered with the throttle through its helical-gear limited-slip differential and will, we're assured, make a fabulous drift car once the electronic stability control is switched off. We were admonished not to turn it off, and were not even told that there is a sport stability setting that raises the limits of intervention if you push the off button once. Thus, all impressions were in comfort or sport mode, where the ESC, surprisingly, mostly stays out of your face anyway.

2018 Kia Stinger

VEHICLE TYPE: front-engine, rear- or all-wheel-drive, 5-passenger, 4-door hatchback
BASE PRICE: $33,000–$48,000 (est)
ENGINES: turbocharged and intercooled DOHC 16-valve 2.0-liter inline-4, 255 hp, 260 lb-ft; twin-turbocharged and intercooled DOHC 24-valve 3.3-liter V-6, 365 hp, 376 lb-ft
TRANSMISSION: 8-speed automatic with manual shifting mode

DIMENSIONS

WHEELBASE: 114.4 in
LENGTH: 190.2 in
WIDTH: 73.6 in
HEIGHT: 55.1 in
PASSENGER VOLUME: 98 cu ft
CARGO VOLUME: 23 cu ft
CURB WEIGHT: 3650–3900 lb

PERFORMANCE (*C/D* EST)

ZERO TO 60 MPH: 4.7–6.0 sec
ZERO TO 100 MPH: 13.3–14.9 sec
1/4-MILE: 13.5–15.0 sec
TOP SPEED: 130–167 mph

FUEL ECONOMY

EPA COMBINED/CITY/HWY: 20–24/17–21/24–30 mpg (est)

The all-wheel-driver is a hair softer and more prone to understeer, though the torque-transfer system was biased by Biermann toward rear-drive. Consider the front wheels more of an assist axle for all-weather driving, which is exactly as it should be. The Brembo calipers and rotors fitted to the GTs we drove operate via a firm pedal and, at least on the rear-driver, were strong in the ways of deceleration (the all-wheel-drive model's brakes were kaput by the time we drove it).

The 3.3-liter engine, also seen in the Genesis G90 and G80 Sport, and scheduled for the forthcoming G70, which will share the Stinger's platform but with a shorter wheelbase and different styling, serves up the sauce with an eager pull and a baritone burble. The only complaint we had with the eight-speed automatic and its three overdrive ratios was its unwillingness at times to respond to the paddles in manual mode. Considering that the Stinger doesn't go on sale in the U.S. until December, there's time to work out the software bugs.

With large, relatively inexpensive rear-drive sedans in short supply—and the current Dodge Charger nearing the end of a long life—the Stinger promises to be a satisfying niche-filler from the most unlikely of sources. We eagerly await more time in it and a chance to drive it at normal speeds.

Lamborghini Huracán Performante ▽

SHARING IS CARING ▽

Corporate Ingenuity

Land Rover finally is adopting JLR's corporate Ingenium four-cylinder for 2018, sliding it under the hoods of the Range Rover Evoque and Discovery Sport. Displacing 2.0 liters and strapped with a single twin-scroll turbocharger, it'll be available in two strengths, with a roughly 240-hp version replacing the old and disappointing Ford-derived turbo 2.0-liter four that's powered those utes since their launches. The uplevel iteration will make something like 290 horses. Both have an integrated exhaust manifold and direct injection.

Lamborghini

Huracán: The new Performante version gives you wings. Well, one anyway. The trick rear wing directs airflow around or through its internal cavities by opening and closing flaps, increasing downforce or decreasing drag depending on speed. It can even adjust the downforce balance left to right to assist cornering. Add in a revised V-10 (up 29 horsepower to 631 total), a beefed-up suspension, optional magnetorheological dampers, more carbon fiber, and a lighter exhaust system, and you have one hell of a road-course-scorching machine.

Aventador: Introduced late in the 2017 model year, the Aventador S replaces the base Aventador in 2018. To make the aging supercar feel young again, Lamborghini has taught it to twerk by way of a rear-wheel steering system. The flame-throwing V-12 now churns out 730 horsepower, up 39. As Aventador SV inventory dwindles, the fate of a 2018 model remains unclear.

—

Urus: Lamborghini's first SUV since the 1987 LM002 will roll out late in the 2018 model year. It shares a platform with the Bentley Bentayga and is powered by a twin-turbo V-8 producing 650 horsepower. A hybrid model will be offered at some point. Expect Urus pricing to start around $200,000, which puts it in direct competition with the Aston Martin DBX, due a year or two later.

—

Dead: Centenario

Land Rover

Discovery: The latest iteration of Land Rover's traditionally boxy family off-roader moves to a version of the platform that underpins the Range Rover and Range Rover Sport, featuring a body with all its corners sanded off. This newest Discovery arrived earlier this year and is a quieter, more competent on-road companion than the LR4 it replaces, while still providing the off-road kit (at least optionally) to not embarrass its heritage. The Disco comes in either five- or seven-seat configurations and starts at around $51,000. For now, the engine options are a 340-hp, supercharged 3.0-liter V-6 and a 254-hp, turbo-diesel 3.0-liter V-6. But we're hearing that the Discovery soon will host the introduction of the new SVX subbrand (no relation to the old Subaru) as an off-road corollary to the SVR on-road performance models JLR cooks up for both its Jaguar and Land Rover brands. Expect plenty of boulder-bashing equipment and, if our sources are correct, a mighty 500-plus-hp supercharged V-8 under the hood.

—

Discovery Sport, Range Rover Evoque: *see "Corporate Ingenuity"*

—

Minor trim changes: Range Rover, Range Rover Sport

Land Rover Range Rover Velar ▽

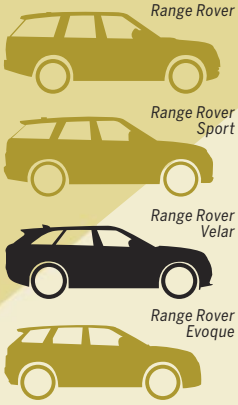
Range Rover Velar:

Serving as sort of the macho-chic counterpart to the more glammy Evoque, the all-new Velar fits between that model and the Sport in Range Rover's expanding lineup. Three engines are offered: a 247-hp turbo four you probably don't want, a 380-hp supercharged V-6 that you probably do, and a 180-hp four-cylinder turbo-diesel you might think about getting but ultimately won't. The rakishly handsome Velar looks to stand apart from the luxury herd with interior appointments such as controls that only light up when the driver starts the car, a fresh infotainment system featuring dual 10-inch touchscreens, and optional upholstery made from sustainable synthetic materials. Pricing runs from $50,895 all the way up to $78,095 for the V-6 in top R-Dynamic HSE spec. If you'd like to spend even more, a $90,295 First Edition model is limited to 500 examples and is jam-packed with enough sumptuous materials to curl nearly any stiff upper lip.

Dead-eyed dash and Union Jack speaker mesh are future terror touches to make Stanley Kubrick sit up in his grave.

2018 LAND ROVER RANGE ROVER VELAR

VEHICLE TYPE: front-engine, all-wheel-drive, 5-passenger, 4-door hatchback • **BASE PRICE:** $50,895–$65,195
ENGINES: turbocharged and intercooled DOHC 16-valve 2.0-liter diesel inline-4, 180 hp, 317 lb-ft; turbocharged and intercooled DOHC 16-valve 2.0-liter inline-4, 247 hp, 269 lb-ft; supercharged and intercooled DOHC 24-valve 3.0-liter V-6, 380 hp, 332 lb-ft • **TRANSMISSION:** 8-speed automatic with manual shifting mode
DIMENSIONS **WHEELBASE:** 113.1 in • **LENGTH:** 189.1 in • **WIDTH:** 76.0 in • **HEIGHT:** 65.6 in
PASSENGER VOLUME: 99 cu ft • **CARGO VOLUME:** 34 cu ft • **CURB WEIGHT:** 4600–4800 lb
PERFORMANCE (*C/D* EST) **ZERO TO 60 MPH:** 5.4–9.4 sec • **ZERO TO 100 MPH:** 13.9–27.9 sec
1/4-MILE: 14.1–17.2 sec • **TOP SPEED:** 120–155 mph
FUEL ECONOMY(*C/D* EST) **EPA COMBINED/CITY/HWY:** 19–28/17–25/22–32 mpg



SIZE QUEENS ▽

Range Life

Think there are already too many Range Rover models? Wrong, says Jaguar Land Rover. The new Velar fits snugly between the 191.2-inch-long Sport and the 172.1-inch-long Evoque.

DO NOT COLLECT 200 ▽

Adding Benjamins

The Germans devolved into badge confusion years ago, and now Lexus is following suit, abandoning model/trim nomenclature linked to engine displacement. Instead of the logical "200t" badge affixed to GS, IS, NX, and RC models powered by a turbo 2.0-liter four, these four-banger Lexi now wear "300" badges. Why? Because 300 is 100 better than 200, of course.

Lexus

IS: Both rear- and all-wheel-drive IS350s get a 5-hp boost for '18, as does the all-wheel-drive IS300. If you want a rear-drive 300, well, you don't get the extra five horses. IS350 rear-wheel-drive models with the F Sport package are now equipped with a limited-slip differential.

—

LC: Lexus's sexy new flagship coupe went on sale earlier this year as a 2018 model, with a V-8 powering the LC500 and a V-6 hybrid propelling the LC500h.

—

LS: The Lexus that started it all begins its fifth chapter intent on disrupting the German-dominated full-size-luxury-sedan segment it once upended. A new platform shared with the LC coupe and a bold and windswept design give it a fighting chance against the S-class and the 7-series. Badged LS500 or LS500h when it goes on sale by the end of the year, neither is actually powered by a 5.0-liter engine. The LS500 has a twin-turbo 3.5-liter V-6 with 415 horsepower mated to a 10-speed automatic, while the LS500h uses a V-6–based hybrid powertrain taken from the LC coupe.

—

NX: If you didn't like the NX's face before, you probably won't like its refreshed and even more aggressive mug now. A retuned suspension with newly available adaptive dampers is said to provide improved ride quality and sharper turn-in, and the tech load now includes a bigger touchscreen and more standard active-safety features.

—

RC: The two-door RC gets the same 5-hp bump in the same driveline configurations as the IS sedan.

—

Minor trim changes: ES350, GS, GS F, RC F, RX
Unchanged: ES300h, GS450h, GX, LX
Dead: CT200h

Lexus LS500 ▽

Lincoln

Navigator: New from the frame up, the big-as-a-cruise-ship Navigator is still a body-on-frame giant, but to help it shed some pounds, its body is now aluminum. Not to worry, its frame remains steel. The Gator's new styling borrows cues from the Continental, but here it's done bigly. Inside, there are three spacious rows of seats and optional 30-way front chairs similar to those in the Continental. Because Lincoln likes to reinvent how you shift into drive, there are now piano-key-like buttons below the infotainment system instead of a conventional shifter. The sole powertrain is a twin-turbo 3.5-liter V-6 projected to make 450 horsepower and a 10-speed automatic—a configuration the Navigator shares with its sister ship, the Expedition. On sale this fall, the Navigator should start at $73,250 and can top $100,000 for the superdeluxe Black Label trim level.

—

Minor trim changes: MKZ
Unchanged: Continental, MKC, MKT, MKX

Lotus

Evora: Lotus left the standard Evora 400 unchanged from last year but introduced a low-volume (150 annual units worldwide) lightweight version of it called the Evora Sport 410 GP Edition this summer. Lotus claims the Sport 410 scrubs 132 pounds from the Evora 400's curb weight through extensive use of carbon fiber (splitter, roof, etc.) as well as a lithium-ion battery. At 400 horses, output remains the same as the Evora 400's.

Lincoln Navigator ▽

Navigator photograph by ANDREW TRAHAN

Dries small foreign objects

Dries anything faster and easier..
the absorber
Seca todo fácilmente y rápidamente

Dries the best

©2017 CleanTools, Inc. • 1-888-ABSORBER • www.theabsorber.com

Listen To Your Battery

Get peace of mind with alerts sent to your mobile device when your battery's voltage is low. Install a Wireless Battery Monitor and you may never have a dead battery again.

- Sends Battery Status Alerts To Your Phone
- Check Your Charge From Anywhere
- iOS And Android Compatible
- Help Avoid The Inconvenience Of A Dead Battery

Download on the App Store
GET IT ON Google Play
CONNECTED POWER

Featured Product:
P/N: 081-0172

DelTran Battery Tender®

LEARN MORE ABOUT CHECKING YOUR BATTERY FROM YOUR PHONE
Visit BatteryTender.com/Monitor

YOU LITERALLY WON'T HAVE TO LIFT A FINGER

AUTOMOTIVETOUCHUP

QUALITY ASSURANCE O.E.M. COLOR MATCH GUARANTEE

With the press of a button, you can restore your car's original paint. Our online videos will show you how to tackle most repairs in a single afternoon.

Paint pens ››› ½ oz & 2 oz bottles
12 oz spray cans ››› Ready-to-spray pints, quarts and gallons

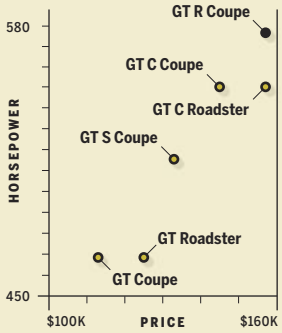
AUTOMOTIVETOUCHUP.COM
888-710-5192

Maserati GranTurismo

CLUSTERPLOT

Mercedes-AMG Chokes

The Mercedes-AMG GT coupe and roadster are the full-choke shotguns of the sports-car world. The company has fired six (!) different versions of the GT into a minuscule area of the car market. And Mercedes promises that there are more variations to come.



Maserati

GranTurismo: Maserati's venerable GranTurismo coupe and convertible, still among the sultriest cars on sale today, get a semi-comprehensive refresh, albeit one that doesn't touch the chassis or powertrain. The same 4.7-liter V-8 propels a body with updated front and rear styling, new paint colors, and an interior that now features the fourth generation of FCA's Uconnect infotainment with an 8.4-inch screen.

—

Minor trim changes: Ghibli, Levante, Quattroporte

Mazda

CX-3: The baby of the SUV family gets Mazda's G-Vectoring Control, which reduces torque to the drive wheels to set up the vehicle for sharper turn-in. While the engineers were in there, they threw new calibrations at the suspension, transmission, and steering. More sound insulation and a new steering wheel with optional heat bring the CX-3 in line with its big brothers.

—

CX-5: A revamped CX-5 arrived late in the 2017 model year. A stiffer underlying structure and sound attenuation improve NVH, that old Mazda bugaboo. The CX-5 has also been blessed with standard G-Vectoring and a heated steering-wheel option. Seeing a pattern here? The 2.5-liter inline-four now makes 187 horsepower, and front- and all-wheel-drive models are still available. The manual transmission and the old 2.0-liter are gone, but a new 2.2-liter turbo-diesel engine will join the lineup for 2018. It will have almost as much power as the gas engine and produce more than 300 pound-feet of torque. Expect to pay more for all that twist, however, as the diesel will initially be restricted to top trim levels.

—

Minor trim changes: CX-9, MX-5 Miata/RF, 3, 6

McLaren

570S Spider: Using the proven retractable-top concept from the 650S Spider, the 570S's two-piece roof can be lowered or raised in 15 seconds. To compensate for the altered roofline, the rear spoiler is a half-inch taller than the coupe's. Though going topless adds roughly 100 pounds, McLaren promises that performance will not be affected, claiming that the Spider's roof-down top speed is a hair-follicle-straining 196 mph. Get yours now for $211,300.

—

720S: This 650S successor gets a beefed-up twin-turbo V-8, displacing 4.0 liters and producing a more-than-adequate 710 horsepower. Replacing aluminum bits in the 650's body with carbon fiber not only reduces weight but also strengthens the overall structure. For $288,845, you get a car that looks like pure sex.

—

Minor trim changes: 570S/GT
Dead: 650S/Spider

Mercedes-Benz

AMG GT: This sports-car lineup continues to balloon. Benz promises there will be six iterations of GT by early 2018 [see "Mercedes-AMG Chokes"]. To parse these out, the GT R wears a full aero kit and boasts 577 horsepower (62 more than the GT S's 515-hp, twin-turbo 4.0-liter V-8). The GT C slots between the S and the R with an even 550 horsepower. A roadster body style is now available on the 469-hp GT and the new C iteration.

—

C-class: A new nine-speed transmission replaces the old seven-speed, improving the C's run to 60 mph by a claimed 0.2 second.

—

E-class: The new E400 sedan uses the 329-hp twin-turbo V-6 previously restricted to the E400 wagon, solving the non-AMG E's sole flaw: speed (or lack thereof). The pokier four-cylinder E300 remains, while the 603-hp V-8–powered E63 AMG S reasserts its place atop the E-class hierarchy in both sedan and wagon forms. The two-door E-class coupe and cabriolet rejoin the lineup, too, both in 329-hp E400 guise and available with or without 4MATIC all-wheel drive.

—

GLA-class: A mild refresh assigns new bumpers, headlights, wheels, and interior displays to the GLA250 and AMG GLA45. Feature allocations are reshuffled, too, with expanded parking assistance and some updated interior trim.

—

GLC-class: The four-cylinder GLC300 and the V-6 GLC43 are joined by the far angrier, AMG-fettled GLC63. Available in both regular and fastback four-door-coupe forms, the GLC63 shares its twin-turbo 4.0-liter V-8 with a gaggle of other AMG products. The GLC63 makes do with 469 horsepower while the available S model (restricted to the GLC63 coupe) ups that figure to 503 ponies.

Mitsubishi Eclipse Cross △

S-class: New names, new engines, and Benz's latest semiautonomous driver aids enhance the S-class for 2018. A 362-hp twin-turbo V-6 anchors the lineup in the new S450 iteration, while the S560 replaces last year's S550, dropping that model's twin-turbo 4.7-liter V-8 for a twin-turbo 4.0-liter unit. That change brings an increase of 14 horsepower, for a total of 463. (The same engine makes its way into the eight-cylinder Maybach, which also sees a name change from S550 to S560 this year.) A 603-hp version of the same 4.0-liter replaces the S63's twin-turbo 5.5-liter V-8, netting the model a 26-hp boost, and the seven-speed automatic is swapped for a newer nine-speed unit. There are no mechanical changes to the 12-cylinder S65 and Maybach models.

—

Minor trim changes: CLA-, G-, GLE-, SL-, SLC-class
Unchanged: CLS-, GLS-class, Metris, Sprinter
Dead: B-class

▽ Mercedes-AMG GT R

Mini

Countryman: The all-new mini-SUV made its debut late in the 2017 model year, available in Cooper, Cooper S, and John Cooper Works spec. And now the Countryman gets an electrified variant, featuring a 134-hp, turbo 1.5-liter inline-three for the front axle and an 87-hp electric motor driving the rear. Combined system output is a respectable 221 horsepower and 284 pound-feet. A 7.6-kWh lithium-ion battery stores enough juice for up to 12 miles of electric-only motivation. Pricing starts at $37,650 for the plug-in, which hits dealerships this fall. Each conventionally powered Countryman receives minor changes for the new year.

—

Minor trim changes: Clubman, Convertible, Hardtop

Mitsubishi

Eclipse Cross: With a recognizable name and a rear end that reminds us of the Pontiac Aztek, this small crossover is the first all-new Mitsubishi in several years. It slides into the narrow gap between the Outlander Sport and the Outlander and is about the same size as a Jeep Compass. No, there won't be a droptop Spyder variant, but the Eclipse Cross does bring forced induction back to Mitsubishi for the first time since the Evo said goodbye. Unfortunately, the turbo 1.5-liter inline-four combined with a standard CVT isn't likely to draw any other Evo comparisons—or Eclipse comparisons, for that matter.

—

Outlander plug-in hybrid: The electrified version of Mitsubishi's Outlander did not arrive at dealerships in fall 2016, as we said it would in last year's New Cars issue; in fact, we're still waiting on this plug-in hybrid crossover to officially arrive in the States as this goes to print. Mitsu reps assure us that a 2018 model really is coming, but we're not too inclined to believe them.

—

Minor trim changes: Mirage/G4, Outlander, Outlander Sport
Dead: Lancer, i-MiEV

The Unmiddling

MERCEDES-AMG'S C43 SEDAN PACKS A MIGHTY PUNCH FOR A TWEENER. _by Mike Sutton

CONNOISSEURS MAY KNOCK Mercedes-AMG's entry-level "43" franchise for diluting the subbrand's signature cocktail, lacking the hand-built engines and berserker attitude of creations with bigger numbers in their badges. Yet despite tamer ingredients and more palatable starting prices, even Affalterbach's modest mixology transforms the humble C-class.

Formerly known as the C450 AMG, the 2017 C43 sedan (as well as coupe and cabriolet) sits between the four-cylinder Mercedes-Benz C300 and AMG's 469-hp V-8 C63. This car's twin-turbo 3.0-liter V-6 may be factory farmed, but it is plenty stout—362 horsepower and 384 pound-feet of torque—and pleasingly soulful in tone for a six-cylinder on a steady infusion of boost.

[+] Bona fide AMG quickness, beautifully finished, still stealthy in traffic.
[–] Unforgiving ride on optional wheels, occasionally fussy nine-speed gearbox.

The big change is AMG's replacement of the previous seven-speed automatic with Mercedes' nine-speed transmission now spreading across its lineup. It is an attentive deliverer of power, despite its occasional refusal to upshift when cruising in sport mode, an issue you can alleviate by engaging the responsive paddle shifters on the wheel. But set it to comfort or sport plus, and the ratios swap with creamy smoothness or assertive jolts, respectively.

Aided by standard all-wheel drive, our test car smoked the old C450 to 60 mph (4.1 seconds to 4.5) and blasted to a 12.7-second quarter-mile at 110 mph. Driven less aggressively, it returned 21 mpg (versus 18 in the C450) and averaged 29 mpg on our 200-mile interstate loop, bettering its EPA highway estimate by 1 mpg.

The C43 borrows its front suspension from the higher-proof C63, with three-position adaptive dampers, stiffened steering knuckles, and revised geometry that gives the C43 a 1.5-inch wider front track than the C300 4MATIC as well as greater negative camber. Its heightened responses are obvious but not as madly aggressive as those of its brutish C63 sibling. Despite an aftertaste of understeer, there's a solid 0.92 g of available grip and a well-mannered refinement to this tweener's comportment. The electrically assisted AMG steering rack is direct and precise at speed, if somewhat muted, and the steering modes—eco, comfort, sport, and sport plus—lend the whole package a sizable bandwidth.

This AMG's ride, however, is obnoxiously stiff and brittle on anything but pristine pavement, especially if you opt for our test car's upsized 19-inch wheels. Try the car on the standard 18s before buying it. The C43's staggered run-flat Continental ContiSportContact 5 performance tires likely account for its middling 171-foot stopping distance from 70 mph. The Pirelli P Zero-shod C450 did it in 160.

The rest of the C43's features largely carry over from the C450, from its handsomely contoured exterior to the beautifully crafted cabin with overly friendly sport seats and a chunky AMG steering wheel. At $52,925 to start, it is a bargain, but our example's garnishes inflated its cost to within a few dollars of the C63's $66,125 base price. While that cost parity leaves us thirsty for the C63's full-bodied V-8, this AMG more than gets the job done.

2017 Mercedes-AMG C43 4MATIC Sedan

VEHICLE TYPE: front-engine, all-wheel-drive, 5-passenger, 4-door sedan
PRICE AS TESTED: $66,085
BASE PRICE: $52,925
ENGINE TYPE: twin-turbocharged and intercooled DOHC 24-valve V-6, aluminum block and heads, direct fuel injection
DISPLACEMENT: 183 cu in, 2996 cc
POWER: 362 hp @ 6000 rpm
TORQUE: 384 lb-ft @ 2000 rpm
TRANSMISSION: 9-speed automatic with manual shifting mode

DIMENSIONS
WHEELBASE: 111.8 in
LENGTH: 185.0 in
WIDTH: 71.3 in
HEIGHT: 56.3 in
PASSENGER VOLUME: 92 cu ft
TRUNK VOLUME: 13 cu ft
CURB WEIGHT: 3900 lb

C/D Test Results

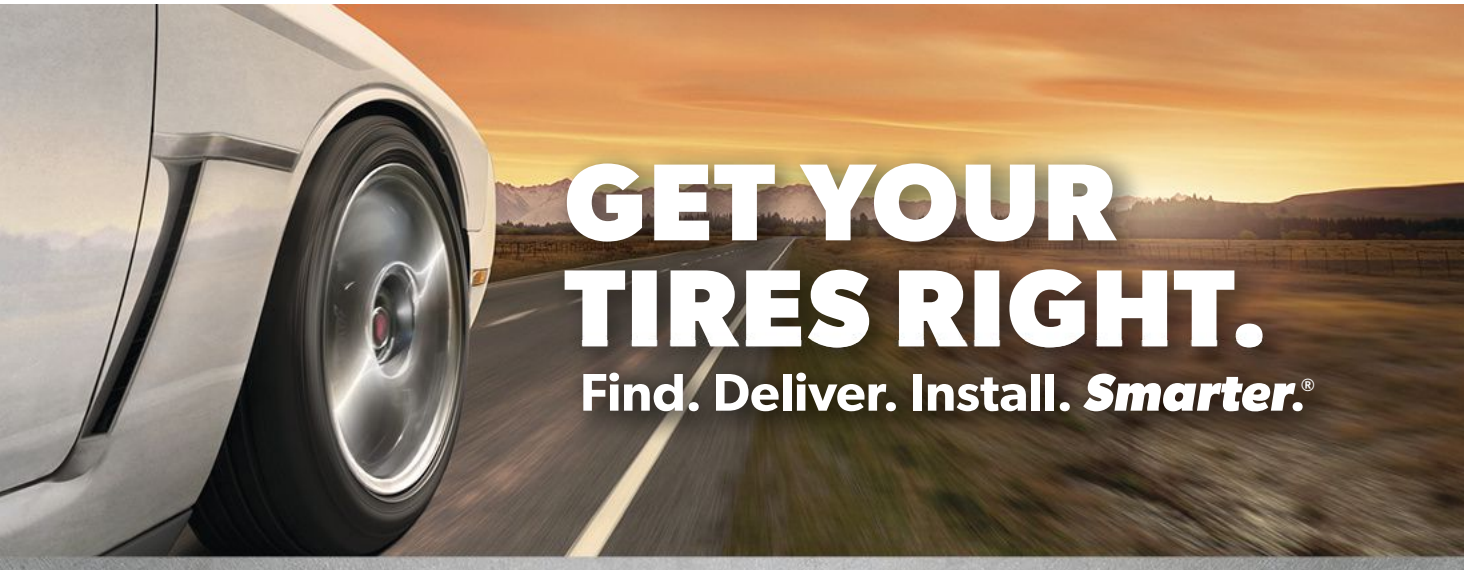
ZERO TO 60 MPH: 4.1 sec
ZERO TO 100 MPH: 10.5 sec
ZERO TO 130 MPH: 18.8 sec
ROLLING START, 5–60 MPH: 5.1 sec
1/4-MILE: 12.7 sec @ 110 mph
TOP SPEED: 134 mph (gov ltd)
BRAKING, 70–0 MPH: 171 ft
ROADHOLDING, 300-FT-DIA SKIDPAD: 0.92 g

FUEL ECONOMY
EPA COMBINED/CITY/HWY: 23/20/28 mpg
***C/D* OBSERVED:** 21 mpg

Shell V-Power NiTRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

photography by CHRIS DOANE AUTOMOTIVE

TIRE RACK®
.com



GET YOUR TIRES RIGHT.

Find. Deliver. Install. *Smarter.*®

Try Our New
TIRE DECISION GUIDE

Not sure what tires are right for you?

Our new and improved Tire Decision Guide eliminates any guesswork on your part. Answer a few **easy questions** and you'll get our top recommendations **based on** your preferences, our consumer survey **results,** our test results and more!

www.tirerack.com/tdg

Ship to a
RECOMMENDED INSTALLER

If you'd like, we can ship your order to your choice of one of our 7,500+ Independent Recommended Installers.

www.tirerack.com/installer

©2017 Tire Rack

BLOG YouTube **800-981-3782**

M-F 8am-8pm EST
SAT 9am-4pm EST

TIRE RACK .com

THE RIGHT TIRE AT THE RIGHT PRICE

OVER 500 MODELS FROM 20 MANUFACTURERS

BFGoodrich · Bridgestone · Continental · Dick Cepek · Dunlop Tires · Firestone · Falken · Fuzion · General Tire · Goodyear · Hankook · Hoosier · Kumho Tire · Michelin · Pirelli · Riken · Sumitomo · Toyo Tires · Vredestein · Yokohama

TIRE REBATES AND SPECIAL OFFERS

Below are a few of the special offers available this month. See them all at www.tirerack.com/specials
To find out about special offers in the future, sign up for our emails at www.tirerack.com/email

Goodyear

GET $80

By mail-in rebate with the purchase of a set of four select Goodyear® tires.

Offer Valid 5-1-17 to 8-31-17

Bridgestone

SCORE $70

GET A $70 PREPAID CARD WHEN YOU BUY 4 ELIGIBLE BRIDGESTONE TIRES.

OFFER VALID 8/10/17–10/8/17

Dunlop

signature FAST 50

Tire Rack Exclusive Offer!

GET $50 by mail-in rebate

OR $100 when you use your Goodyear Credit Card with the purchase of four Dunlop **Signature HP** tires.

Offer valid August 1-31, 2017

BOLT-ON CONVENIENCE

Our Tire & Wheel Packages Include:

- Free scratchless mounting and Hunter™ Road Force balancing
- All necessary hardware

www.tirerack.com/packages

©2017 Tire Rack

BLOG YouTube **800-981-3782**

M-F 8am-8pm EST
SAT 9am-4pm EST

TIRE RACK .com

Continental
The Future in Motion

GET A **$70** VISA® PREPAID CARD
with the purchase of 4 new Continental Tires!*

Offer Valid August 1–31, 2017

ExtremeContact™ DWS06

Ultra High Performance All-Season *87 sizes from 16" to 22"*

SportPlus+ Technology | TIRE RACK Consumer Recommended

Developed for sports cars, sports coupes, performance sedans and sport trucks, ExtremeContact DWS 06 (**D**ry, **W**et & **S**now) tires are designed to blend dry and wet road performance with slush and snow traction. Central independent blocks with x-sipes separated by high-angle, **criss-cross grooves** provide the biting edges necessary to promote all-direction traction on wet roads and in light snow.

ExtremeContact™ Sport

Max Performance Summer *71 sizes from 16" to 20"*

SportPlus+ Technology

With a focus on precise handling in wet or dry conditions, the ExtremeContact Sport delivers balanced performance for serious enthusiasts. The increased sidewall stiffness provides responsive steering, while patented +Silane tread compound technology and **wide, circumferential grooves** deliver confident wet traction and hydroplaning resistance.

NOTE: Like all summer tires, the ExtremeContact Sport is not intended to be driven in near-freezing temperatures, through snow or on ice.

*Visit WWW.TIRERACK.COM/SPECIALS for complete offer details.

GIFT WITH PURCHASE OFFER: Valid only with qualified purchase made in the forty-eight (48) contiguous continental U.S. States, Hawaii, D.C., and Puerto Rico between 8/1/17 and 8/31/17 or while supplies last. Void where prohibited by law. No rain checks. Valid with the original, dated, paid receipt for the purchase of four (4) new qualifying CONTINENTAL TIRE PASSENGER or LIGHT TRUCK tires. Offer may not be combined with any other offer, discount, rebate, or promotion. Tires must be purchased in a single transaction. Offer form must be postmarked or submitted online by 9/30/17. Offer not valid on purchases by wholesalers, dealers, fleets, OEM customers, or other commercial entities. Requests from those with an invalid or undeliverable mailing address will be denied. Limit two (2) Continental Tire Visa® Prepaid Cards per household. Card is issued by MetaBank®, Member FDIC, pursuant to a license from Visa U.S.A. Inc. No cash access or recurring payments. Can be used everywhere Visa debit cards are accepted. Card valid for up to 12 months; unused funds will be forfeited at midnight EST the last day of the month of the valid thru date. Card terms and conditions apply, see MyPrepaidCenter.com/site/visa-promo. Not responsible for late, lost, stolen, misdirected, illegible, mutilated, or postage due mail or inability to connect to website. Any taxes, fees or costs are sole responsibility of recipient. Allow 8-12 weeks for fulfillment. Each time you use the card, the amount of the transaction will be deducted from the amount of your available balance. Card will be issued in the name on the redemption form only. Expiration date of card is on front of card. Subject to applicable law. Card is non-transferable and non-refundable. Card will not be re-issued after expiration date. Additional terms and conditions apply to the card. See card program website for details. WARNING: Tampering with, altering, or falsifying purchase information constitutes fraud and could result in state and federal prosecution.

©2017 Tire Rack

BLOG YouTube **800-981-3782**

M-F 8am-8pm EST
SAT 9am-4pm EST

TIRE RACK .com

A HUGE SELECTION OF OVER 1,500 DIFFERENT WHEELS

O.Z. **Alleggerita HLT**
16 17 18

O.Z. **Hyper GT HLT**
18 19

O.Z. **Ultraleggera HLT**
19 20

O.Z. **Leggera HLT**
18 19 20

O.Z. **Rally Racing**
18 19

Bremmer Kraft **BR15**
17 18

Bremmer Kraft **BR16**
17 18 19

See Them on Your Vehicle!

Enter your vehicle at tirerack.com to experience one-click access to everything that fits it.

Sparco **Assetto Gara**
14 15 16 17 18

Sparco **Assetto Gara**
15 16 17 18

Sparco **Pro Corsa**
17 18

Sparco **Terra**
16 17

Sparco **Terra**
16 17

What About TPMS?

We can assist you in selecting wheels that are compatible with your vehicle's sensors. We also offer an extra set of sensors for all TPMS systems, so your tire and wheel package can arrive with sensors already installed.

Enkei Tuning **Raijin**
18

Enkei Tuning **TD5**
17 18

Enkei Tuning **TS-10**
17 18

Enkei Tuning **TX5**
17 18

Advanti DST **HY Hybris**
19 20

Enkei Perf. **Draco**
16 17 18

Enkei Perf. **SS05**
17 18 20

Enkei Perf. **X-Over**
17 18 20

Enkei Racing **RPF1**
15 16 17 18

ASA **AR1**
17 18

Verde **Saga**
17 18 20

Verde **Parallax**
19 20 22

BRAKES akebono brembo ebcUSA GOODRIDGE Centric Parts STOPTECH HAWK

SUSPENSION Eibach H&R KYB SPC PERFORMANCE WHITELINE BILSTEIN HOTCHKIS SPORT SUSPENSION KONI KW ST SACHS

©2017 Tire Rack

BLOG YouTube **800-981-3782**

M-F 8am-8pm EST
SAT 9am-4pm EST

TIRE RACK .com

HANKOOK driving emotion

2017 GREAT HIT REBATE

GET UP TO $100

BACK VIA MAIL-IN REBATE WHEN YOU PURCHASE A SET OF FOUR SELECT HANKOOK TIRES* FROM **AUGUST 1 - SEPTEMBER 30, 2017.**

Ventus V12 evo2

Max Performance Summer†

The Ventus V12 evo2 features a functionalized styrene polymer that lowers rolling resistance for improved vehicle fuel economy without surrendering dry and wet traction. Notched shoulders and 3D intermediate ribs flanking a continuous center rib promote dry handling and traction.

†Like all summer tires, the Ventus V12 evo2 is not intended to be driven in near-freezing temperatures, through snow or on ice.

Ventus S1 noble2

Ultra High Performance All-Season

A sophisticated asymmetric tread design features notched outboard shoulders, intermediate and center ribs to bring together impressive ultra high performance in dry and wet conditions with all-season traction in light snow.

KINERGY GT	OPTIMO H727	Dynapro HP2	Dynapro HT	Dynapro AT-M
Grand Touring All-Season	*Standard Touring All-Season*	*Crossover/SUV Touring All-Season*	*Highway All-Season*	*On-/Off-Road All-Terrain*

***For complete offer details and rebate amounts per model, call or visit www.tirerack.com/specials.**

©2017 Tire Rack

BLOG YouTube **800-981-3782**

M-F 8am-8pm EST
SAT 9am-4pm EST

PRESUMED DEAD △

Requiem for a Weirdo

Just as the B-segment SUV class bursts at its adorable seams with new entries, rumor has it that one of the early examples of the breed, Nissan's baby-freak-show Juke will not return for the 2018 model year. Juke, we will never forget your crazy toenail-clipping-like front turn signals and your funny frog butt. Oh, and we're sorry we once described your GT-R–powered Juke-R version as looking like a "mobile teratoma."

Nissan

Leaf: Set to arrive in September 2018, the new Leaf should offer more traditional styling and a longer range of around 150 miles. A 40.0-kWh battery pack is expected to replace the current 30.0-kWh unit. Our educated guess is that compatibility with 150-kW fast chargers is on the horizon.

—

Rogue: Look for Nissan's ProPilot semiautonomous-driving technology to migrate to North America in the 2018 Rogue. In other news, the Rogue Sport, added late in the 2017 model year, is the N.A. version of the Nissan Qashqai, the brand's best-selling vehicle in Europe. Slightly smaller than the Rogue in every dimension, we think it looks more comfortable in its skin than its big brother. Power comes from a 141-hp 2.0-liter inline-four paired with a CVT; front- and all-wheel-drive versions are available.

—

Sentra: While base-level Sentras are pretty underwhelming, the recently released 2017 Sentra NISMO offers a glimmer of hope. Powered by the same turbocharged 1.6-liter inline-four found in the Sentra SR Turbo, it makes an effective 188-hp counterpoint to the base model's 130-hp 1.8-liter. Revised suspension tuning and a six-speed manual transmission (we suggest you ignore the no-cost CVT) do their best to transform the Sentra.

—

Minor trim changes: 370Z
Unchanged: Altima, Armada, Frontier, GT-R, Maxima, Murano, NV200, NV2500/NV3500, Pathfinder, Titan/XD, Versa/Note
Dead: Quest

Porsche

Panamera: Not daring to use the word "wagon," Porsche calls its long-roof Panamera the Sport Turismo. But Porsche can call it anything it wants: It's the most striking and practical version of the car. Four variants of the wagony model will be available for 2018—4, 4 E-Hybrid, 4S, and Turbo. But if you're in the Panamera game for ultimate speed, it's the Panamera Turbo S E-Hybrid—only available in the original body style—you'll want. Coupling the 550-hp twin-turbocharged V-8 with a 136-hp electric motor, Porsche's magic math yields a combined output of 680 horsepower and 626 pound-feet of torque. Which is just about enough.

—

911: The 911 Nuclear Option arrives for 2018 in the form of a 700-hp, rear-wheel-drive, 3241-pound GT2 RS: the most powerful production 911 of all time. The magnesium-roofed PDK-only missile comes with a carbon-fiber hood and carbon-ceramic brake rotors. The Weissach package adds carbon-fiber anti-roll bars and magnesium wheels. It'll hit 60 mph in 2.7 seconds according to Porsche. Three additional new models augment the 911 lineup: the throat-drying GT3, the powered-up GTS, and the 607-hp Turbo S Exclusive Series. Porsche makes good on last year's hints that the naturally aspirated stick-having 911 isn't a thing of the past with the appearance of a revised 991-chassis GT3. With 500 horsepower and an available manual transmission, it's sure to frustrate those who laid out big bucks for the 2016 911 R. The 3.0-liter boosted flat-six in GTS models offers a 30-hp bump over the standard Carrera S, upping output to 450. That same 30-hp increase is also available in Carrera S and 4S models via an optional 3.0 S Powerkit.

—

Minor trim changes: Cayenne, Macan, 718 Boxster, 718 Cayman

Ram

Minor trim changes: ProMaster, ProMaster City, 1500, 2500/3500 HD

Rolls-Royce

Phantom: Rolls-Royce's aluminum privy looks like the same old brick, but it's all-new for 2018, built on a new platform that will carry the next generation of the brand's family. It remains the same massive luxury land yacht as before. Absurd levels of opulence will still be in store, as will silky-smooth power, albeit from a new 6.8-liter twin-turbo V-12 making 563 horsepower. Only a sedan and an extended-wheelbase version will be offered when the new Phantom arrives this fall. The coupe and convertible variants won't return for the Phantom's eighth generation, but the new architecture will underpin the Cullinan SUV that will appear around 2019.

—

Dawn: The droptop Rolls will receive the same Black Badge treatment lately applied to the Ghost and Wraith, resulting in a small power bump, some chassis tweaks, and a murdered-out appearance.

—

Minor trim changes: Ghost
Unchanged: Wraith

Porsche 911 GT2 RS ▽

THE DRIVER'S SEAT
Promotions Products Experience

"DEALER ONLY" PARTS NO LONGER

More parts are available at RockAuto.com to solve unique problems found only on specific car and truck models. Better plastics, electronic components, bushings, bearings and other design details help prevent the problems that caused the original parts to fail.

RockAuto.com

3M Auto
Work Like a Pro.

ROOSE
220
Trusted by professionals like Chip Foose to deliver PROFESSIONAL RESULTS every time.
3M Science Applied to Life.™
3mauto.com

Important Legal Notice from the United States District Court for the Southern District of Florida

If you are a current or former owner or lessee of certain BMW, Mazda, Subaru, and Toyota vehicles, you could get cash and other benefits from a class action settlement.

Si desea recibir esta notificación en español, llámenos o visite nuestra página web.

Settlements have been reached in a class action lawsuit alleging that consumers sustained economic losses because they purchased or leased vehicles from various auto companies that manufactured, distributed, or sold vehicles containing allegedly defective airbags manufactured by Takata Corporation and its affiliates. The Settlements include certain vehicles made by BMW, Mazda, Subaru, and Toyota (the "Subject Vehicles"). BMW, Mazda, Subaru, and Toyota deny any and all allegations of wrongdoing and the Court has not decided who is right.

If you have already received a separate recall notice for your BMW, Mazda, Subaru, or Toyota vehicle requesting that you bring it to your local retailer to have the Takata airbags repaired and have not yet done so, you should contact your local retailer to make an appointment for this repair as soon as possible. Some vehicles will be recalled for repair at a later date, and some vehicles may not be recalled. **When recalled Takata airbags deploy, they may spray metal debris toward vehicle occupants and may cause serious injury.** Please see your original recall notices and www.AirBagRecall.com for further details.

Am I included in the proposed Settlements? The Settlements include the following persons and entities:

- Owners or lessees, as of June 9, 2017, of a Subject Vehicle that was distributed for sale or lease in the United States or any of its territories or possessions, and
- Former owners or lessees of a Subject Vehicle that was distributed for sale or lease in the United States or any of its territories or possessions, who, between April 11, 2013 and June 9, 2017, sold or returned pursuant to a lease, a Subject Vehicle that was recalled before June 9, 2017.

A full list of the Subject Vehicles can be found at www.AutoAirbagSettlement.com. The Settlements do not involve claims of personal injury or property damage to any property other than the Subject Vehicles.

What do the Settlements provide? BMW, Mazda, Subaru, and Toyota have agreed to Settlements with a combined value of approximately $553 million, including a 10% credit for Rental Car/Loaner Programs. The Settlement Funds will be used to pay for Settlement benefits and cover the costs of the Settlements over an approximately four-year period.

The Settlements offer several benefits for Class Members, including, (1) payments for certain out-of-pocket expenses incurred related to a Takata airbag recall of a Subject Vehicle, (2) a Rental Car/Loaner Program while certain Subject Vehicles are awaiting repair, (3) an Outreach Program to maximize completion of the recall remedy, (4) additional cash payments to Class Members from residual settlement funds, if any remain, and (5) a Customer Support Program to help with repairs associated with affected Takata airbag inflators and their replacements. The Settlement website explains each of these benefits in detail.

How can I get a Payment? You must file a claim to receive a payment during the first four years of the Settlements. If you still own or lease a Subject Vehicle, you must also bring it to an authorized dealership for the recall remedy, as directed by a recall notice, if you have not already done so. Visit the website and file a claim online or download one and file by mail. The deadline to file a claim will be at least one year from the date the Settlements are finalized and will be posted on the website when it's known.

What are my other options? If you do not want to be legally bound by the Settlements, you must exclude yourself by **September 25, 2017**. If you do not exclude yourself, you will release any claims you may have against BMW, Mazda, Subaru, and Toyota, in exchange for certain settlement benefits. The potential available benefits are more fully described in the Settlements, available at the settlement website. You may object to the Settlements by **September 25, 2017**. You cannot both exclude yourself from, and object to, the Settlements. The Long Form Notices for each Settlement available on the website listed below explains how to exclude yourself or object. The Court will hold a fairness hearing on **October 25, 2017** to consider whether to finally approve the Settlements and a request for attorneys' fees of up to 30% of the total Settlement Amount and incentive awards of $5,000 for each of the Class Representatives. You may appear at the fairness hearing, either by yourself or through an attorney hired by you, but you don't have to. For more information, including the relief, eligibility and release of claims (excluding certain personal injury or property damage claims), in English or Spanish, call or visit the website below.

1-888-735-5596 • www.AutoAirbagSettlement.com

THE C SUITE ▽

Top Bananas

These are the three people most responsible for bringing the car brands on this page to Americans.

Smart: Roger Penske
When Smart's parent company, Daimler-Benz, first began selling the wee cars in the United States in 2008, it contracted Penske Auto Group to be the sole U.S. distributor. Daimler then retook control of Smart in America in 2011. We're guessing The Captain was cool with that.

Subaru: Malcolm Bricklin
Bricklin is best known for the eponymous gullwing sports coupe of the '70s. But before that, he secured the exclusive right to sell the truly awful Subaru 360 in the States and founded Subaru of America in 1968. This would be a high point in his career, which included bringing the even more awful Yugo to the U.S. and a failed deal to import Chery automobiles.

Tesla: Elon Musk
Despite his close association with Tesla Motors, Musk did not actually found the company. It was Martin Eberhard and Marc Tarpenning who established the electric-car concern in 2003. After Musk led a successful round of funding, he became chairman of the board in 2004 and CEO in 2008. He became Twitterer-in-Chief around the same time. And, in 2028, he begins living on Mars full time.

Smart

Fortwo Electric Drive: Smarts have always looked like electric cars, even before there was an electric Smart. Now, that's all we'll get, after Smart cuts its gas-powered Fortwos from the U.S. market this fall. Electric Drive models use an 80-hp motor and a 17.6-kWh battery pack. While that setup provides only 70 to 80 miles of range, we prefer it over the internal-combustion version anyway, the latter powertrain having a lot of rough edges. And in the end, there are a lot of other, more sensible cars available for the money. The Smart Fortwo Electric Drive coupe starts at $24,550; the cabriolet is $28,750.

Subaru

BRZ: New is a not-quite-STI version of Subaru's little coupe called the tS. Simmer down—it brings no additional power. It does bring a big, adjustable rear wing and other aero addenda. Subaru has also stiffened the structure with subframe connectors and front strut-tower braces. Retuned dampers, different springs, and 18-inch wheels shod with Michelin Pilot Sport 4 S tires are tS exclusives. Also, the tS uses the Brembo brake calipers from the BRZ Performance package.

—

Crosstrek: Subaru's small quasi-crossover is the company's only all-new vehicle for 2018. The Crosstrek moves, as did the Impreza last year, to the brand's Global Platform architecture, which promises greater rigidity benefiting both ride and handling as well as crash-test performance. The new Crosstrek is a bit larger than the car it replaces. It's powered by an updated 2.0-liter flat-four engine that now uses direct injection and gets a slight boost in output to 152 horsepower. Base and Premium models can be had with a six-speed manual. All other versions use a CVT. All-wheel drive is standard.

—

Legacy: For 2018, the Legacy receives a host of updates aimed at keeping the sedan competitive with the new Honda Accord and Toyota Camry. Subaru retuned the suspension for a smoother ride and its steering for better feel. The front and rear fascias are new, too, and steering-responsive headlights are available. Sound-insulating front-door glass is standard on all models. The interior benefits from higher-quality materials and includes a redesigned center console and a new steering wheel. The two available infotainment systems include Android Auto and Apple CarPlay functionality. Rear-seat passengers now get a USB port, and the cabin's improved air-conditioning system will keep them cool while using it.

—

Outback: This wagon gets the same updates as the Legacy sedan, less the retuned suspension and steering.

—

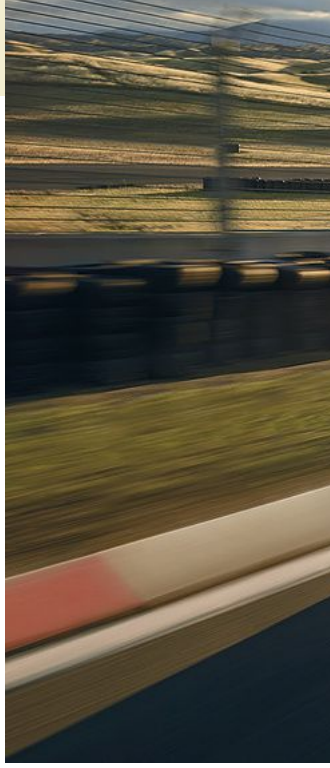
WRX: The big news for '18 is Rex's optional Performance package that includes a power driver's seat, performance brake pads, Recaro front seats, and a sunroof delete. There are a bunch of detail changes, too, including a fold-down rear-center armrest, a new instrument cluster, heated exterior mirrors, and steering-responsive headlights for the top-tier Limited trim.

—

WRX STI: Subaru will produce 500 examples of a special Type RA version of its STI. It comes with a carbon-fiber wing, 19-inch BBS wheels wearing Yokohama Advan Sports, and Bilstein dampers. The model gets a slight power boost (estimated to bring the total to 310 horsepower) thanks to a cold-air intake, freer-flowing exhaust, ECU fiddling, and stronger pistons. In addition to some trim differences, the RA also gets the revised Brembo brake system that's available on all STIs for '18, which swaps four-piston front calipers for six-piston units. The regular STI receives a raft of detail changes including 19-inch wheels (up from 18) plus most of the standard WRX updates.

—

Minor trim changes: Forester
Unchanged: Impreza



▽ Subaru Crosstrek

HEADSHOT IMAGES BY: ERIN COMBS, BOB LEVERONE, AND KARWAI TANG /GETTY IMAGES

Subaru WRX STI Type RA ▽

Tesla

Model S: The revolutionary Model S is now five years old and on a continuous evolutionary journey thanks to Tesla's policy of introducing running changes to its products, rather than waiting until model-year changeovers. Yet another realignment of the variants and options last year put an optional 100.0-kWh battery under the floor, giving the Model S 100D a 335-mile EPA-estimated range and allowing the performance-oriented P100D to hit 60 mph in a claimed 2.5 seconds. Entry-level trims still sport a 75.0-kWh battery. Tesla has upgraded its Autopilot hardware with more cameras, sensors, and processing power. Every car comes preloaded with the tech, but functionality—including purported autonomous-driving capability—is optional. Supercharging is no longer unlimited; 400 kilowatt-hours per year are included gratis, but after that, new buyers must pay. Tesla owners trading up from an older model to a new one are grandfathered into the free-supercharging scheme, which now resembles a red-state public-employee pension plan. For more information on this or any other Tesla policy, be sure to follow Tesla CEO Elon Musk on Twitter.

—

Model X: Tesla's mid-size crossover also received the 100.0-kWh-battery upgrade, giving it up to 295 miles of range. Other Model S updates also apply. Except if they don't. See: @elonmusk.

—

Model 3: This compact electric sedan will have a 215-mile range and run a sub-six-second zero-to-60 sprint, all with a base price of around $35,000. Tesla will ditch the driver instrument display altogether and use a large center touchscreen. But the real excitement may be in the 3's controls, which Musk describes as feeling "like a spaceship." Granted, that's pretty much how he imagines everything. Model 3 production is slated to begin this year, with Tesla reportedly adopting a controversial plan to forgo prototype tooling in an effort to accelerate the launch of its most important product yet. With the company holding more than 400,000 deposits for the Model 3, this Chevy Bolt competitor has the potential to be another Tesla revolution.

Toyota

Camry: *see first drive, page 108*

—

C-HR: Introduced earlier this year as a 2018 model, the C-HR—for Coupe High Rider—is Toyota's new subcompact crossover, although its 144-hp 2.0-liter four-cylinder drives the front wheels only (through a CVT). Oh, and it's actually a four-door, just with the rear door handles up near the roof.

—

Mirai: Previously available only in California, Toyota's hydrogen-powered sedan heads east, to Connecticut, Massachusetts, New Jersey, New York, and Rhode Island, and does so with an upgraded infotainment system and two additional USB ports.

RAV4: Chunkier body cladding and a 0.4-inch-greater ride height denote the new Adventure model, which also gets black trim, wheels, and graphics. It's available with front- or all-wheel drive.

—

Sequoia: The giant SUV adds an unlikely TRD Sport variant in either rear- or all-wheel-drive form, featuring Bilstein dampers, retuned anti-roll bars, and 20-inch wheels in black, along with a black grille. All Sequoia models get Toyota's TSS-P batch of active-safety tech, including adaptive cruise control, lane-departure warning, and forward-collision warning with pedestrian detection, along with blind-spot monitoring and rear cross-traffic alert. Inside, an electroluminescent instrument cluster incorporates a TFT info screen.

—

Sienna: *see comparo, page 110*
Though not available in time for our comparison test, 2018 Siennas get the SE's flared side sills as well as a less friendly new face. Toyota's suite of driving-aid safety tech is now standard; the Entune multimedia interface graduates to version 3.0 with available Wi-Fi; the USB count increases to five; and the rear-seat entertainment system can stream from Android devices.

—

Tundra: TRD Sport replaces TRD Pro because, well, we don't know why. The regular-cab version of Toyota's big pickup is no more.

—

Minor trim changes: Prius, Prius C, Prius V, Tacoma, Yaris, 4Runner, 86
Unchanged: Avalon, Corolla, Corolla iM, Highlander, Land Cruiser, Prius Prime, Yaris iA

Model(s) S

Since the 2012 model year, Tesla has produced 15 variations of its Model S sedan. Here they are, sorted by EPA-rated range.

MODEL: 2017 100D
RANGE: 335 MILES

2016–17 P100D
315 MILES

2016–17 90D
294 MILES

2015–16 85D, 2015 90D, 2016–17 P90D
270 MILES

2012–16 85, 2015–16 90
265 MILES

2016–17 75D
259 MILES

2015–16 P85D, 2015 P90D
253 MILES

2016–17 75
249 MILES

2014 85D
242 MILES

2015–16 70D
240 MILES

2016 70
234 MILES

2016–17 60D
218 MILES

2016–17 60
210 MILES

2013–15 60
208 MILES

2013 40
139 MILES

△ Tesla Model X & Toyota C-HR

Crazy Eighth

THE NEW TOYOTA CAMRY WANTS TO GET DOWN AND PARTY. _by Joe Lorio

▽

EVER SINCE THE CAMRY ARRIVED as a 1983 model, it has been the very embodiment of the sane, sensible family sedan. Over six successive generations, that focus eventually made it America's best-selling passenger car—and also one of its most boring. Then, Toyota boss Akio Toyoda set out to banish "boring" from the brand's vocabulary. In response, Toyota gave the seventh-gen Camry a more-extensive-than-usual mid-cycle update for the 2015 model year, but the transformation reaches full flower in the all-new eighth-generation car. This Camry really wants to raise heck.

To start, there's the new styling, the Camry equivalent of a purple mohawk. Longer, lower, and (fractionally) wider than before, the new car wears an angry visage marked by a pinched upper grille and a gaping maw. The lower bodywork flares outward, the shoulder line kicks up beyond the rear door handles, and a crease slashes across the C-pillar and extends to the decklid. The sportish SE and XSE models have even-busier front and rear styling and additional side sculpting, and XSE buyers can opt for an available black roof. Is the new Camry's styling better? Well, there certainly is more of it.

The interior also turns funky, binning the slablike dash for a more three-dimensional design bisected by a wavelike trim piece. The quadrilateral center stack angles toward the driver, while on the passenger's side, the dash curves away to create a greater sense of spaciousness. The gloss-black center stack with its integrated display screen has today's requisite smartphone-like appearance yet retains enough knobs and buttons for easy operation. Top-spec models enjoy padded surfaces, soft-touch plastics, and attractive graining, some of which are preserved for mid-level trims, although they have hard-plastic door panels and a cheaper-feeling steering wheel. This Camry also is more adventurous with color, with the gray and tan interiors using multiple hues, while the XSE offers a red-and-black scheme.

[+] Extroverted styling, muscular engines, toned chassis.
[–] Higher prices across the range, heavier than before.

The nearly two-inch-longer wheelbase helps preserve interior roominess, including generous rear-seat legroom, even as designers lowered the roofline and the seating position. They also lowered the hood and the beltline to maintain decent outward visibility.

This makeover goes beyond appearances; much of the hardware has changed, as the Camry moves to a new platform: Toyota New Global Architecture (TNGA). The engines are new, although their layouts and displacements are familiar. The direct-injected 2.5-liter inline-four has a longer stroke and a higher compression ratio than before and boasts variable valve timing with an electrically actuated camshaft on the intake side allowing occasional Atkinson-cycle operation. Output climbs from 178 horsepower and 170 pound-feet to 203 and 184—or 206 horsepower and 186 pound-feet in the XSE with its quad exhaust outlets, a Camry first. A 176-hp version of the same engine pairs with two

motor-generators in the hybrid. A V-6 returns with a robust 301 horsepower and 267 pound-feet of torque, up from 268 horsepower and 248 pound-feet. A new eight-speed automatic replaces the old six-speed with both gas engines, but the hybrid continues with a CVT.

From behind the wheel, the transformation is greater than you might expect. The mainstay four-cylinder's additional grunt makes it the most powerful naturally aspirated four in the segment. And while the new car isn't any lighter—in fact, it's gained a few pounds—we found the four to be energetic and well mannered with its eight-speed automatic partner.

Then we tried the V-6. Its horsepower rating bests all competitors' turbocharged fours, as well as the segment's remaining sixes (excepting the twin-turbo V-6 in the Ford Fusion Sport). And yet, the 3.5-liter's output doesn't overwhelm the chassis even as acceleration unloads the front wheels. We dig the surplus of go. That, combined with its smoothness and sophisticated engine note, puts the V-6 on a higher plane. We say get it while you still can—provided you can swing the $35,285 price of entry, although that does include a head-up display, premium JBL audio, wireless smartphone charging, Wi-Fi, and an 8.0-inch touchscreen rather than a 7.0.

With either engine, the Camry driving experience has been elevated. Toyota engineers claim to have lowered the car's center of gravity by an inch, while the TNGA platform brought a change from a strut-type rear suspension to a multilink setup. The new chassis is remarkably stable and gamely resists body roll. In gentler driving, there's a newfound poise that replaces the somnambulant motions of the previous car. The steering has real weight that builds nicely as you turn the wheel. Even in its sportiest iteration, the new Camry may not goad you into apex hunting, but should you take the initiative yourself, the Camry steels its gaze and plays along.

For all the emphasis on finding its wild side, no Camry redesign could completely neglect the model's traditional virtues. Thus, the 2018 car posts a major improvement in fuel economy. The four-cylinder sees a 5-mpg jump in its EPA-estimated combined rating (the base L version improves by 7 mpg), and the V-6 manages a 2-mpg increase.

The hybrid, meanwhile, vaults over the 50-mpg bar with a class-leading EPA rating of 52 mpg combined. That, however, is for the LE model only; SE and XLE hybrids are rated at 46 mpg. Those two versions retain a nickel-metal-hydride battery, while the LE switches to a lighter lithium-ion unit. We took a spin in the LE hybrid, and its behavioral transformation is less remarkable than the nonhybrid models we drove. Its CVT still elicits droning under acceleration. Moreover, this model's steering and suspension haven't firmed up as much as its siblings'. This new hybrid does, however, achieve natural brake-pedal feel as it mixes friction and regenerative braking, an accomplishment that has long eluded Toyota (as well as many other hybrid-car makers). And no matter the battery type, all hybrid Camrys relocate the cells from the trunk to under the rear seat, increasing luggage space and creating a rear-seat pass-through.

The Camry's base price brings many safety features. Toyota makes standard its forward-collision system with pedestrian detection and automatic braking, adaptive cruise control, lane-departure warning with steering assist, and automatic high-beam headlights.

Now that it's SUVs, not midsize sedans, that turn buyers' heads, being a staid, family four-door is no longer a great strategy. The time is right for the Camry to cut loose.

2018 Toyota Camry

VEHICLE TYPE: front-engine, front-wheel-drive, 5-passenger, 4-door sedan
BASE PRICE: $24,380–$35,835
ENGINES: DOHC 16-valve Atkinson-capable 2.5-liter inline-4, 203 or 206 hp, 184 or 186 lb-ft; DOHC 24-valve 3.5-liter Atkinson-capable V-6, 301 hp, 267 lb-ft; DOHC 16-valve Atkinson-capable 2.5-liter inline-4, 176 hp, 163 lb-ft + permanent-magnet synchronous AC electric motor, 118 hp, 149 lb-ft, combined system, 208 hp, 1.0-kWh lithium-ion or 1.6-kWh nickel-metal-hydride battery pack
TRANSMISSIONS: 8-speed automatic with manual shifting mode, continuously variable automatic

DIMENSIONS
WHEELBASE: 111.2 in
LENGTH: 192.1–192.7 in
WIDTH: 72.4 in
HEIGHT: 56.9 in
PASSENGER VOLUME: 100–101 cu ft
TRUNK VOLUME: 15 cu ft
CURB WEIGHT: 3300–3600 lb

PERFORMANCE (*C/D* EST)
ZERO TO 60 MPH: 5.7–7.8 sec
ZERO TO 100 MPH: 14.6–22.0 sec
1/4-MILE: 14.3–16.0 sec
TOP SPEED: 115–130 mph

FUEL ECONOMY
EPA COMBINED/CITY/HWY: 26–52/22–51/32–53 mpg

Toyota's correct: There is nothing boring about a front grille that looks like an athletic supporter hanging on a chain-link fence.

REAL #vanlife

Millennials have made vans cool again. But minivans? Still uncool.

_by Jeff Sabatini

_photography by Marc Urbano

▲

CHRYSLER PACIFICA LIMITED
Price: $48,780
Power: 287 hp
Torque: 262 lb-ft
Weight: 4610 lb
C/D observed: 22 mpg

typography by NATHAN YODER

FIND
MORE
FREE
MAGAZINES

FREEMAGS.CC

TOYOTA SIENNA LIMITED PREMIUM
Price: $47,855
Power: 296 hp
Torque: 263 lb-ft
Weight: 4729 lb
C/D observed: 22 mpg

HONDA ODYSSEY ELITE
Price: $47,610
Power: 280 hp
Torque: 262 lb-ft
Weight: 4583 lb
C/D observed: 23 mpg

You have likely seen the images on social media: iridescent playas, emerald forest canopies, frozen mountain peaks. Beaches and sunsets and other gorgeous scenery, the kinds of pictures that make you stop and say, "Wow, this could be my screensaver!" Except, that is, for the van parked in the shot, sometimes accompanied by its young neo-hippie owner doing Half Lord of the Fishes poses while dressed in as little clothing as the Instagram Terms of Use will allow. This is #vanlife, a social-media phenomenon in which classic automotive wanderlust gets whacked with a selfie stick.

These are not those vans. Those vans are vintage Volkswagens or commercial Ford Econolines, campers and conversions as colorful and full of character as their live-in owners. These are minivans, loaded with Blu-ray players and vacuums and three rows of kid-friendly buckets and benches. These are vehicles designed for parenthood and responsibility, their owners having traded character for characters. "Barbie, Elmo, or SpongeBob? Which do you want to watch, honey?"

The redesigned 2018 Odyssey is the newest minivan on the market, the fifth generation of Honda's people mover. The company claims that it has made the segment's best seller for seven years running, but Honda likes to count only retail sales. If you look at both retail and fleet numbers, the 2016 title went to the Toyota Sienna by a narrow margin; the Sienna also won our last minivan comparo in 2015. However, Toyota sold just 127,791 Siennas last year, while FCA moved a total of 249,115 minivans split among three nameplates. The

	2017 CHRYSLER PACIFICA LIMITED	2018 HONDA ODYSSEY ELITE	2017 TOYOTA SIENNA LIMITED PREMIUM
PRICE AS TESTED	**$48,780**	**$47,610**	**$47,855**
BASE PRICE	**$43,990**	$47,610	$47,130
DIMENSIONS			
LENGTH	203.8 in	203.2 in	200.2 in
WIDTH	79.6 in	78.5 in	78.1 in
HEIGHT	69.9 in	69.6 in	70.7 in
WHEELBASE	121.6 in	118.1 in	119.3 in
FRONT TRACK	68.3 in	67.3 in	67.7 in
REAR TRACK	68.3 in	67.2 in	67.7 in
INTERIOR VOLUME	**F:** 58 cu ft **M:** 54 cu ft **R:** 47 cu ft	**F:** 58 cu ft **M: 57 cu ft** **R: 48 cu ft**	**F: 59 cu ft** **M:** 53 cu ft **R:** 44 cu ft
CARGO BEHIND	**F:** 141 cu ft **M: 88 cu ft** **R:** 32 cu ft	**F:** 141 cu ft **M:** 87 cu ft **R:** 33 cu ft	**F: 150 cu ft** **M:** 87 cu ft **R: 39 cu ft**
TOWING			
MAX	**3600 lb**	3500 lb	3500 lb
POWERTRAIN			
ENGINE	DOHC 24-valve V-6 220 cu in (3605 cc)	SOHC 24-valve V-6 212 cu in (3471 cc)	DOHC 24-valve V-6 211 cu in (3456 cc)
POWER HP @ RPM	287 @ 6400	280 @ 6000	**296** @ 6600
TORQUE LB-FT @ RPM	262 @ 4000	262 @ 4700	**263** @ 4700
REDLINE/FUEL CUTOFF	none/6600 rpm	6800/6500 rpm	6800/6500 rpm
LB PER HP	16.1	16.4	**16.0**
DRIVELINE			
TRANSMISSION	9-speed automatic	10-speed automatic	8-speed automatic
DRIVEN WHEELS	front	front	front
GEAR RATIO:1/ MPH PER 1000 RPM/ MAX MPH	❶ 4.70/5.5/36 ❷ 2.84/9.1/60 ❸ 1.91/13.5/89 ❹ 1.38/18.7/111 ❺ 1.00/25.8/111 ❻ 0.81/31.9/111 ❼ 0.70/36.9/111 ❽ 0.58/44.5/111 ❾ 0.48/53.8/111	❶ 5.25/4.4/29 ❷ 3.27/7.1/46 ❸ 2.19/10.7/70 ❹ 1.60/14.6/95 ❺ 1.30/18.0/111 ❻ 1.00/23.3/111 ❼ 0.78/29.9/111 ❽ 0.65/35.9/111 ❾ 0.58/40.2/111 ❿ 0.52/44.9/111	❶ 5.52/4.9/32 ❷ 3.18/8.5/55 ❸ 2.05/13.1/85 ❹ 1.49/18.1/112 ❺ 1.24/21.7/112 ❻ 1.00/27.0/112 ❼ 0.80/33.7/112 ❽ 0.67/40.2/112
FINAL-DRIVE RATIO:1	3.25	3.61	3.00
CHASSIS			
SUSPENSION	**F:** struts, coil springs, anti-roll bar **R:** multilink, coil springs, anti-roll bar	**F:** struts, coil springs, anti-roll bar **R:** multilink, coil springs, anti-roll bar	**F:** struts, coil springs, anti-roll bar **R:** torsion beam, coil springs
BRAKES	**F:** 13.0-inch vented disc **R:** 13.0-inch disc	**F:** 12.6-inch vented disc **R:** 13.0-inch disc	**F:** 12.9-inch vented disc **R:** 12.2-inch disc
STABILITY CONTROL	traction off	partially defeatable	partially defeatable, traction off
TIRES	Michelin Premier A/S 235/60R-18 103H M+S	Bridgestone Turanza EL440 235/55R-19 101H M+S	Goodyear Eagle RS-A 235/55R-18 100V M+S

CAR AND DRIVER TEST RESULTS

ACCELERATION			
0–30 MPH	2.6 sec	2.6 sec	**2.5 sec**
0–60 MPH	7.4 sec	**6.6 sec**	6.9 sec
0–100 MPH	19.8 sec	**17.0 sec**	18.1 sec
0–110 MPH	24.8 sec	**21.3 sec**	22.7 sec
1/4-MILE @ MPH	15.6 sec @ 91	**15.2 sec @ 95**	15.4 sec @ 93
ROLLING START, 5–60 MPH	7.8 sec	**6.6 sec**	7.1 sec
TOP GEAR, 30–50 MPH	4.3 sec	**3.5 sec**	3.7 sec
TOP GEAR, 50–70 MPH	5.5 sec	**4.1 sec**	5.2 sec
TOP SPEED	111 mph (gov ltd)	111 mph (gov ltd)	**112 mph** (gov ltd)
CHASSIS			
BRAKING, 70–0 MPH	**180 ft**	184 ft	181 ft
ROADHOLDING, 300-FT-DIA SKIDPAD	**0.80 g***	0.75 g*	0.75 g*
610-FT SLALOM	**37.6 mph***	36.9 mph*	36.9 mph*
WEIGHT			
CURB	4610 lb	**4583 lb**	4729 lb
%FRONT/%REAR	56.2/43.8	55.2/44.8	56.0/44.0
CG HEIGHT	**25.5 in**	**25.5 in**	26.5 in
FUEL			
TANK	19.0 gal	19.5 gal	**20.0 gal**
RATING	87 octane	87 octane	87 octane
EPA COMBINED/CITY/HWY	**22/19/28 mpg**	**22/19/28 mpg**	**22/19**/27 mpg
***C/D* 300-MILE TRIP**	22 mpg	**23 mpg**	22 mpg
PRACTICAL STOWAGE			
NO. OF 9 X 14 X 22-IN BOXES, BEHIND F/M/R	53/28/**12**	52/26/11	**57/29/12**
LENGTH OF PIPE	**155.5 in**	145.0 in	153.5 in
LARGEST FLAT PANEL, LENGTH X WIDTH	95.5 x **48.5 in**	**100.0** x 48.3 in	98.0 x 48.3 in
SOUND LEVEL			
IDLE	**37 dBA**	40 dBA	41 dBA
FULL THROTTLE	76 dBA	78 dBA	**72 dBA**
70-MPH CRUISE	68 dBA	**67 dBA**	68 dBA

**Stability-control inhibited.*

Tested by DAVID BEARD *and* ERIC TINGWALL *in Chelsea, MI*

Dodge Grand Caravan and Chrysler Town & Country twins accounted for more than 186,000 units, with the rest of those sales belonging to the new-for-2017 Chrysler Pacifica. The old Grand Caravan still soldiers on—and leads the 2017 sales race so far. But it's the Pacifica that represents the latest and greatest from the company that invented the soccer mom.

While brand-spanking-new Dodges are being advertised locally for under $17,000, our test vehicles occupy the opposite end of the minivan pricing spectrum. These fully loaded examples bear prices close to $50,000. The Pacifica Limited has the lowest starting price, at $43,990, though once we added a rear-seat entertainment system and driver-assistance features, it became the most expensive, at $48,780. Our Sienna Limited Premium is missing the advanced safety features of the other two competitors, but still stickers for $47,855. The Elite-trimmed Odyssey carries a $47,610 base price, which covers almost everything you can throw at the Honda, including a welcome new infotainment system.

This is a robust and competitive market, in part because minivan design has coalesced around one formula: front-wheel drive, automatic transmissions, just over 200 inches in length, seven- or eight-passenger seating, a curb weight near 4600 pounds, and a V-6 engine making about 285 horsepower and 260 pound-feet of torque. It has made minivans as interchangeable as pickups and just as likely to engender the same fierce brand loyalty. Still, there is one with which we'd most like to photobomb the Lake Michigan sunset.

Toyota Sienna [+] Great engine, excellent transmission, loungelike second row. [–] Feels cheap, isn't cheap; looks old, is old. [=] An engine swap keeps it competitive, but the Sienna needs a redesign.

3. Toyota Sienna

Toyota's minivan has been on sale for seven years without a full overhaul. A cursory examination revealed our 2017 model-year van to be identical to the one we last tested. Except this one is a silvery color, which made us think that maybe the gray one we had the last time had simply been parked outside in the sun for too long.

Pulling onto the highway, we discovered what had changed in one swiftly executed merge: A new version of the corporate 3.5-liter V-6 is now underhood, updated to include both port and direct injection and mated to a new eight-speed transmission. This gives the Sienna the

When comparing minivans, no metric is more meaningful to shoppers than top speed. Here, the Sienna pips its competition by a crucial 1 mph. Unimportantly, its interior isn't as nice as the other vans'.

Honda Odyssey [+] Drives like a sedan, 10-speed transmission, now has a physical volume knob. [–] No stowable second row, it's only one knob. [=] A great-driving van in search of better seating flexibility.

most power in our test at 296 horses, and it ranks as our favorite of the three engines. Weighing almost 150 pounds more than the lightest van (the 4583-pound Honda), the Toyota isn't as quick, but who cares about two-tenths of a second in the quarter-mile in a minivan, really? The Sienna still moves when asked thanks to its quick-shifting and entirely predictable transmission, though a long throttle-pedal travel seems designed to thwart enthusiastic driving. The Sienna's muted intake noise even sounds pretty good, certainly better than the raspy Honda.

The rest of this van, however, is showing its age. Like most Toyotas, it appears to be engineered to be functional rather than exceptional. Its front seats are flat and hard. The lounge seats in the second row have footrests, but this makes the seats bulky when folded and hard to remove. The interior is noticeably inferior, with more hard plastic and a cheaper feel to the materials than the others. The wood grain on the dashboard is embarrassingly phony. Toyota will be remedying the Sienna's paucity of USB ports for 2018, adding to the one currently offered, but we worry that this will just exacerbate the somewhat random placement of switchgear that can only seem logical to someone who has driven a long succession of Toyota products.

It's not hard to find such people, however, which is why the Sienna marches on. But until Toyota brings the rest of the package in line with its new powertrain, there are better choices.

2. Honda Odyssey

The first thing you notice about the new Odyssey is that it looks a lot like last year's model, minus the gashes in the rear fenders. After 19 model years of selling minivans with sliding rear doors, Honda has finally figured out how to hide the track under the window trim. Chrysler did it in 1995, back when the Odyssey still had conventionally hinged rear doors. But those Odysseys drove like cars, a trait that we're happy to say is back in this new one. It feels less like the Pilot, with which it shares a platform, and more like an extra-large Accord.

The Odyssey's seating position is lower than that of the others, and its suspension does a better job of managing rough roads.

Honda should have spent its minivan-tricks budget on second-row seats that either fold into the floor like the Pacifica's or that are at least as easily removed. Instead, they slide laterally for no really good reason.

HARBOR FREIGHT

QUALITY TOOLS AT RIDICULOUSLY LOW PRICES

SUPER COUPON

PITTSBURGH AUTOMATIVE #1 SELLING JACKS IN AMERICA

Customer Rating ★★★★★

RAPID PUMP® 3 TON LOW PROFILE HEAVY DUTY STEEL FLOOR JACK

SAVE $69

- Weighs 73 lbs.

ITEM 61253
62326
61282 shown

$79.99 ~~$95.99~~

Compare $149.98

18632179

LIMIT 3 – Coupon valid through 12/8/17*

SUPER COUPON

HARDY™

Customer Rating ★★★★★

POWDER-FREE NITRILE GLOVES PACK OF 100

SAVE 53%

- 5 mil. thickness

SIZE	ITEM
MED	68496/61363
LG	68497/61360
X-LG	68498/61359

YOUR CHOICE $5.99 ~~$7.99~~

Compare $12.99

18635709

LIMIT 8 – Coupon valid through 12/8/17*

SUPER COUPON

CENTRAL PNEUMATIC

3 GALLON, 100 PSI OIL-FREE AIR COMPRESSORS

SAVE 59%

Customer Rating ★★★★☆

A. HOT DOG ITEM 69269/97080 shown

B. PANCAKE ITEM 95275 shown
60637/61615

- Air delivery: 0.6 CFM @ 90 PSI, 1 CFM @ 40 PSI

YOUR CHOICE $39.99 ~~$54.99~~

Compare $98.62

18636097

LIMIT 4 – Coupon valid through 12/8/17*

SUPER COUPON

CHICAGO ELECTRIC POWER TOOLS

12" SLIDING COMPOUND DOUBLE-BEVEL MITER SAW

- Powerful 15 amp motor
- Makes precision cross, bevel and miter cuts
- Laser guide

Customer Rating ★★★★☆

Blade sold separately.

SAVE $169

$129.99 ~~$199.99~~

Compare $299

18636241

LIMIT 5 – Coupon valid through 12/8/17* ITEM 61969/61970/69684 shown

---

SUPER COUPON

PITTSBURGH AUTOMOTIVE

2 PIECE VEHICLE WHEEL DOLLIES

SAVE 47%

Customer Rating ★★★★☆

$44.99 ~~$54.99~~*

Compare $84.99

ITEM 60343/67338 shown

- 1500 lb. capacity

18636348

LIMIT 5 – Coupon valid through 12/8/17*

SUPER COUPON

CENTECH

3-IN-1 PORTABLE POWER PACK WITH JUMP STARTER

Customer Rating ★★★★☆

SAVE 38%

$39.99 ~~$49.99~~

Compare $64.99

ITEM 38391/62376
62306 shown

18639435

LIMIT 3 – Coupon valid through 12/8/17*

SUPER COUPON

20% OFF

ANY SINGLE ITEM

Limit 1 - Coupon per customer per day. Save 20% on any 1 item purchased. *Cannot be used with other discount, coupon or any of the following items or brands: Inside Track Club membership, Extended Service Plan, gift card, open box item, 3 day Parking Lot Sale item, compressors, floor jacks, saw mills, storage cabinets, chests or carts, trailers, trenchers, welders, Admiral, Bauer, Cobra, CoverPro, Daytona, Earthquake, Hercules, Jupiter, Lynxx, Poulan, Predator, StormCat, Tailgator, Viking, Vulcan, Zurich. Not valid on prior purchases. Non-transferable. Original coupon must be presented. Valid through 12/8/17.

18621353

SUPER COUPON

FREE

WITH ANY PURCHASE

3-1/2" SUPER BRIGHT NINE LED ALUMINUM FLASHLIGHT

$4.97 VALUE

ITEM 69111
63599/62522/62573
63875/63884/63886
63888/69052 shown

LIMIT 1 - Cannot be used with other discount, coupon or prior purchase. Coupon good at our stores, HarborFreight.com or by calling 800-423-2567. Offer good while supplies last. Shipping & Handling charges may apply if not picked up in-store. Non-transferable. Original coupon must be presented. Valid through 12/8/17. Limit one FREE GIFT coupon per customer per day.

18626271

SUPER COUPON

EARTHQUAKE XT BEATS Snap-on*

1/2" HIGH TORQUE IMPACT WRENCH

MODEL EQ12XT

SUPER COUPON $129.99

Customer Rating ★★★★★
ITEM 62891

90 DAY RISK FREE TRIAL

18651116

1190 FT. LBS.	TORQUE BOLT BREAKAWAY	1190 FT. LBS.
90 dB	SOUND LEVEL	90 dB
YES	PRO COMPOSITE	NO
4.4 LBS.	WEIGHT	4.8 LBS.
$149.99	PRICE	$524.95

MODEL MG725

LIMIT 3 - Coupon valid through 12/8/17*

*Based on actual product comparison testing.

WOW SUPER COUPON

BADLAND Battle Tested

Customer Rating ★★★★☆

2500 LB. ELECTRIC WINCH WITH WIRELESS REMOTE CONTROL

SAVE $70

- Weighs 14.3 lbs.
- 11-1/8" L x 4-1/2" H

Voted Best Winches

$49.99 Compare $119.99 ~~$77.99~~

18651146

LIMIT 3 – Coupon valid through 12/8/17*

ITEM 61840/61297
63476/61258 shown

WOW SUPER COUPON

PITTSBURGH

32 PIECE SCREWDRIVER SET

Customer Rating ★★★★★

SAVE 56%

$5.99 Compare $13.67 ~~$7.99~~

18657385

LIMIT 9 – Coupon valid through 12/8/17*

ITEM 61259
90764 shown

SUPER COUPON

7 FT. 4" x 9 FT. 6" ALL PURPOSE WEATHER RESISTANT TARP

Customer Rating ★★★★½

SAVE 65%

$2.99 ~~$4.99~~ Compare $8.58

ITEM 69249/69115/69137/69129/69121/877 shown

18658239

LIMIT 7 – Coupon valid through 12/8/17*

SUPER COUPON

U.S. GENERAL

30", 5 DRAWER TOOL CART

Customer Rating ★★★★★

- 8100 cu. in. of storage
- 704 lb. capacity
- Weighs 120 lbs.

SAVE $990

ITEM 61427/63308/69397/95272 shown

$159.99 ~~$199.99~~

Compare $1150

56435966

LIMIT 4 – Coupon valid through 12/8/17*

WOW SUPER COUPON

PREDATOR

4000 PEAK/ 3200 RUNNING WATTS 6.5 HP (212 CC) GAS GENERATOR

SAVE $170

Customer Rating ★★★★½

Wheel kit sold separately.

SUPER QUIET ITEM 69676/69729/63080/63079 shown

ITEM 69675/69728/63090/63089 CALIFORNIA ONLY

- GFCI outlets

$289.99 ~~$329.99~~

Compare $1999

18665118

LIMIT 4 – Coupon valid through 12/8/17*

SUPER COUPON

CENTRAL PNEUMATIC

HIGH SPEED METAL SAW

$12.99 ~~$17.99~~

Compare $39.99

SAVE 67%

ITEM 60568/62541/91753 shown

18669082

LIMIT 6 – Coupon valid through 12/8/17*

800+ Stores Nationwide • HarborFreight.com • 800-423-2567

*Original coupon only. No use on prior purchases after 30 days from original purchase or without original receipt. Valid through 12/8/17.

At Harbor Freight Tools, the "Compare" or "comp at" price means that the same item or a similar functioning item was advertised for sale at or above the "Compare" or "comp at" price by another retailer in the U.S. within the past 180 days. Prices advertised by others may vary by location. No other meaning of "Compare" or "comp at" should be implied. For more information, go to HarborFreight.com or see store associate.

FINAL RESULTS

Shell V-Power NITRO+ Premium Gasoline
The Official Fuel of CAR AND DRIVER

Maximum points available

		CHRYSLER PACIFICA LIMITED	HONDA ODYSSEY ELITE	TOYOTA SIENNA LIMITED PREMIUM
RANK		**1**	**2**	**3**
VEHICLE				
DRIVER COMFORT	10	**9**	8	7
ERGONOMICS	10	**9**	7	7
SECOND-ROW COMFORT	5	4	4	**5**
SECOND-ROW SPACE*	5	4	**5**	4
THIRD-ROW COMFORT	5	**4**	**4**	**4**
THIRD-ROW SPACE*	5	**5**	**5**	4
CARGO SPACE*	5	4	4	**5**
FEATURES/AMENITIES*	10	**10**	7	6
FIT AND FINISH	10	**8**	7	6
INTERIOR STYLING	10	**9**	7	6
EXTERIOR STYLING	10	**9**	7	7
REBATES/EXTRAS*	5	**2**	0	**2**
AS-TESTED PRICE*	20	**20**	**20**	**20**
SUBTOTAL	110	**97**	**85**	**83**
POWERTRAIN				
1/4-MILE ACCELERATION*	20	18	**20**	19
FLEXIBILITY*	5	4	**5**	**5**
FUEL ECONOMY*	10	9	**10**	9
ENGINE NVH	10	7	7	**9**
TRANSMISSION	10	6	**8**	**8**
SUBTOTAL	55	**44**	**50**	**50**
CHASSIS				
PERFORMANCE*	20	**20**	18	18
STEERING FEEL	10	7	**8**	6
BRAKE FEEL	10	**8**	7	7
HANDLING	10	8	**9**	6
RIDE	10	**9**	8	7
SUBTOTAL	60	**52**	**50**	**44**
EXPERIENCE				
FUN TO DRIVE	25	19	**20**	16
TOTAL	250	**212**	**205**	**193**

These objective scores are calculated from the vehicle's dimensions, capacities, rebates and extras, and/or test results.

There's too much crash over bumps in the Sienna, and the Pacifica has a bad habit of bouncing over undulations. The Odyssey has a more direct feel to its steering than the others do.

Honda offers a new 10-speed automatic with paddle shifters in the Touring and Elite trim levels of the Odyssey. We consider this a must-have, given our experiences with the erratic nine-speed in other Hondas. Unlike the Pacifica's nine-gear transmission, Honda's 10-speed unit never refuses to downshift, though it sometimes gets confused in low-speed transitional situations. Regardless, we credit it with helping the Honda achieve the best fuel economy in our test at 23 mpg, 1 mpg better than both its EPA-combined rating and the other two vans.

What Honda still hasn't cribbed from its American rival, however, is how to make its second-row seats disappear—unless you count removing them to stash in the garage. Which is actually more difficult than it sounds thanks to both a convoluted release mechanism and their hefty weight. Even then, there's no flat load floor; you have to work around an omnipresent and bulky seat track. While this system allows the Honda's chairs to slide laterally in addition to fore and aft, we're skeptical that such a feature would prove anywhere near as useful as the Pacifica's Stow 'n Go system. Chrysler's second row has grown even simpler to dispatch and deploy since it made its debut for the 2005 model year; two generations of Chrysler minivan later, it remains the segment's killer app.

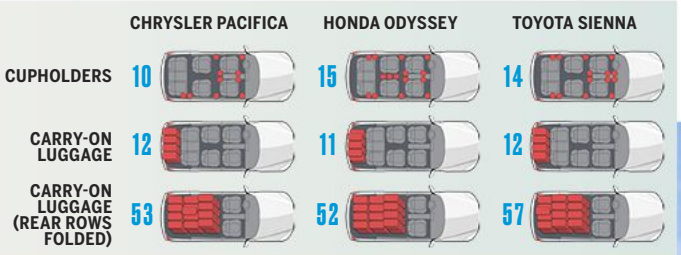
1. Chrysler Pacifica

Minivan life is less a lifestyle than mere parental survival. It's catching a 15-minute nap in the parking lot while waiting to pick your kid and her friends up from hockey practice. It's driving five hours through a blizzard with said hockey team stuffed in the back after losing a tournament. Or worse, after winning. It's finally unpacking the hockey duffels two months after the season ended because it's only then that you need the cargo space to go on vacation. How far away is the Hockey Hall of Fame in Toronto, anyway?

The Pacifica has it all covered. Its front seats are the most comfortable here, and we found them the most supportive over a long drive. While the Chrysler's steering is artificially heavy, it tracks straight down the freeway as if it's already had Waymo self-driving hardware installed. And unlike the Honda's cheapo

ROOM RATES

The Pacifica lost the cupholder war, but its cabin is still our fave. And who needs 57 roll-aboards anyway?



adaptive-cruise control, which cuts out at low speed, the Chrysler can automatically brake all the way down to a stop.

While its Stow 'n Go seats may not be the Barcaloungers of the Sienna, the Chrysler's second row is no longer two thin pads strapped to an Erector set. When it comes to interior storage, the big in-floor bins that swallow the Pacifica's second-row captain's chairs give it an exponential advantage.

The Chrysler also has the best distribution of cupholders and power ports throughout the vehicle. Driver ergonomics are outstanding, and Chrysler's infotainment system is simple and easy to use, with large graphics and clean fonts designed to work with even kielbasa-like fingers. Honda's system is improved and highly capable, but unnecessarily complicated with "apps," settings, and options for customization. The Pacifica may not be the objectively roomiest minivan, but it feels bigger than it is. It has a narrow dashboard, which shrinks the glovebox but makes the front cabin seem spacious; its skinny second-row seat bottoms perform a similar trick.

The Pacifica even has an in-car vacuum now, aping the Honda, although we aren't so impressed with this gimmick in either van. Nor does the Honda's latest trick, a surveillance camera pointing at the rear rows, seem like something the world—or the Pacifica—needs. Please don't feed the helicopter moms.

Minivans get used up as a matter of course. Owners tend to care little about how they look, or at least it seems that way given how many we see on the road that appear to have gone months (years?) between washings. But the Pacifica seems like something you'd want to take care of, with luxury pretensions absent in the others. Its interior is nicer and appears to be better assembled, with more isolation from the outside world. Fancy little touches abound, such as the piping around the seats, real stitching on the steering wheel, and anodized-metal dash inserts. Remember, someone in Italy thought some of these parts were good enough for Maserati to use.

The Toyota has the nice engine and the Honda the chassis, but the Chrysler has more of the things that matter in a minivan. It's the one we'd most like to live with, even if we have no intention of living in it.

Chrysler Pacifica [+] Excellent front seats, disappearing second row. [–] Floaty suspension, transmission hates downshifting. [=] Practicality plus personality make the Pacifica (almost) perfect.

The Pacifica offers the most comfortable front seats, the most sensible ergonomics, and is the easiest to convert from cargo-carrying to passenger-toting interior setups. You know, things that matter.

△ Volvo S90 & Volkswagen e-Golf

Volkswagen

Arteon: It won't arrive stateside until next summer, but the 2019 Arteon is the most exciting thing happening in Wolfsburg since the last Spargelzeit. A butch replacement for the CC, this four-door "coupe" looks like an Audi A7 that's been fed creatine and razor blades. Grander and fancier than the Passat, the front-drive Arteon will pack a 268-hp turbocharged 2.0-liter inline-four paired exclusively with an eight-speed automatic. Pricing starts around $35K. A long list of options, including all-wheel drive, driver-assistance features, and a reconfigurable digital instrument panel, will drive the price north of $40K, which may give traditional VW buyers pause. Most Americans will just recoil in horror, as if seeing white asparagus for the first time, when they discover that this beautiful car is a hatchback.

—

Atlas: The world's largest car company has finally produced a seven-seat crossover. And it's only a decade late. The Atlas is a spacious minivan surrogate that's good enough to make everyone forget the Routan. A boosted 2.0-liter inline-four powers base front-drive Atlas models that start at just $31,425. Upgrade to a refined version of the 3.6-liter narrow-angle V-6 making 276 horsepower and you can also get all-wheel drive. Continue to load on the options and the price tops out north of $49K.

—

Beetle: A new version of VW's corporate EA888 turbo 2.0-liter inline-four finds its way into several models this year, including the Beetle. This Generation 3B engine made its debut in the 2017 Audi A4; it uses a modified Miller cycle to improve fuel efficiency. In the 2018 Beetle, it makes 174 horsepower, up four from the 1.8-liter it replaces. And the old 2.0-liter turbo four that powered the Beetle R-Line? We hope you said your goodbyes, because both engine and model reached the end of the line this year. Dealers will instead get a special trim level called Coast, which outfits a teal-colored Beetle with houndstooth plaid seats and a surfboard-look dash.

—

e-Golf: Volkswagen's electric erstwhile Rabbit keeps going and going, with a new battery pack giving it 51 percent more range, for 125 miles total. Once depleted, the e-Golf's battery needs less than six hours to recharge thanks to the now-standard 7.2-kW onboard charger. An improved motor brings power and torque up, too, to 134 horses and 214 pound-feet. And because the improved electric model arrived last spring as a 2017 model, it already has the refreshed styling—new colors, bumpers, grille, and wheels—that the rest of the Golf family gets for 2018.

—

Golf GTI: All trims now get the 10-hp bump that formerly was limited to certain trims, meaning every new GTI will make 220 horsepower. DSG models will get automatic stop-start. Summer tires are now optional across the board.

—

Golf R: A new seven-speed dual-clutch transmission with stop-start replaces last year's six-speed DSG, and VW's digital instrument panel is now standard.

—

Passat: VW's mid-size sedan also gets the new turbocharged 2.0-liter as its base engine. A new GT trim for the V-6 model comes with 19-inch wheels and sport suspension tuning and combines the R-Line front fascia with other cosmetics that VW calls "GTI inspired."

—

Tiguan: *see first drive, page 120*

—

Minor trim changes: Golf, Golf Alltrack/SportWagen, Jetta
Dead: CC, Touareg

Volvo

S90: All-new last year, the S90 sedan grows for 2018. Volvo has added an additional 4.7 inches of wheelbase, benefiting rear-seat passengers. Last year's model, now referred to (by us) as S90 Stubs, is no longer available in the U.S. market. This longer S90 is the same as the model already offered in China, which happens to be where it's built. The 400-hp T8 Twin Engine plug-in hybrid powertrain introduced on the XC90 is now available for this model, too. It sits atop the all-four-cylinder-engine range.

—

XC40: Volvo's first compact crossover rides on its new Compact Modular Architecture (CMA) that will later spawn a small sedan and wagon. The XC40, which should go on sale around the middle of 2018, pulls its infotainment hardware, four-cylinder powertrains, and active safety features from Volvo's larger cars. A new-to-Volvo three-cylinder engine could be in the mix, and the CMA's bones have been designed to accommodate electric and plug-in hybrid powertrains.

—

XC60: *see first drive, page 122*

—

Minor trim changes: V90/Cross Country, XC90
Unchanged: S60, V60

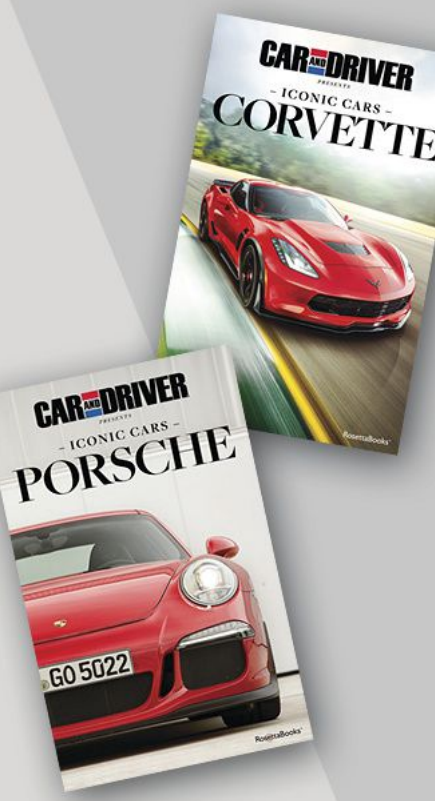
CUT ▽

"A butch replacement for the CC, the Arteon four-door 'coupe' looks like an Audi A7 that's been fed creatine and razor blades."

Volkswagen Arteon ▽

Two stunning retrospectives celebrating the past and present of these iconic cars.

Featuring sensational photography throughout.



AVAILABLE AS E-BOOKS FROM ALL MAJOR ONLINE BOOK RETAILERS

CAR AND DRIVER

RosettaBooks®

BMW & MINI parts

- Free shipping over $150 (most orders)
- Free DIY video guides
- Free color catalog

BAVARIAN autosport

BMW since 1974. MINI since 2002.

800.535.2002 | BAVauto.com

The Tig Goes Big

BY INFLATING THE TIGUAN, VW SOLVES SOME PROBLEMS BUT ALSO CREATES NEW ONES. _*by Joseph Capparella*

▽

IN ITS ATTEMPT TO COURT U.S. BUYERS, Volkswagen has tried on big—the spacious, made-for-America versions of the Jetta and Passat sedans—and tried on tall—the Tiguan and Touareg SUVs. Both approaches have found mixed success on our shores. Now VW has finally figured out that Americans like their cars both big *and* tall.

An SUV push is underway at Volkswagen to try to make up for lost time, starting with the three-row Atlas and continuing with the second-generation Tiguan, which is considerably bigger than its Euro-centric, too-small predecessor. The new Tig's 185.1-inch length exceeds the old Tiguan's by a whopping 10.6 inches and makes it one of the largest entries in the compact-crossover segment, eclipsing key rivals such as the Honda CR-V, Nissan Rogue, and Toyota RAV4.

We're getting only the long-wheelbase version of the new Tiguan in the States (there's a short-wheelbase version already on sale in Europe), and it's capacious enough that VW saw fit to offer a third row of seats, a rarity in this class. The Rogue and the Mitsubishi Outlander are the only other crossovers this size that can lay claim to seven-passenger capacity, and it's a dubious claim at that—as anyone who has ever tried to stuff a passenger over five-feet tall into their third row knows.

As in the extra-large Atlas, the Tiguan's packaging is its strong suit. Yes, the third row works best as a kids-only zone, but adults will fit in a pinch. The roomy second row is an especially nice place to spend time. It reclines, slides fore and aft, and features well-sculpted padding. Front-drive Tiguans come with seven seats, but you can get a Tiguan with only two rows if you opt for 4Motion all-wheel drive. Then, the third row becomes a $500 option. Blame the feds for that weird anomaly: Front-drive models need the third row in order to be classified as a light truck; all-wheel-drive versions don't. We'd probably choose an all-wheel-drive model with two rows of seats, due to the extra cargo space the five-seat configuration offers. With 74 cubic feet of maximum cargo volume, the five-seat Tiguan can carry more junk than almost anything else in its class.

[+] My, how you've grown; natty styling; lots of choices. [–] Gets spendy with options, engine needs some vitamin H, chassis lacks verve.

The downside to the new Tiguan's ballooning size is that it loses the previous-generation's Golf-on-stilts character, which made it one of the more entertaining small crossovers to drive. The new

Tiguan is less eager, riding softly and rolling considerably in corners. Even though it shares its basic MQB bones with the 10Best-winning Golf, the combination of the Tiguan's extra mass and the relaxed tuning of its chassis and controls removes a considerable degree of responsiveness. The overboosted, electrically assisted steering lacks on-center feel, turn-in is lazy, and the brake pedal is a bit mushy. Volkswagen clearly prioritized quiet comfort over athleticism. The Tiguan tracks straight down the freeway and features a quiet and plush ride, qualities that will please family-minded shoppers.

The Tig's turbocharged 2.0-liter inline-four has been updated and now uses a modified version of the Miller cycle that VW calls the Budack cycle, in which the intake valves close earlier during the intake stroke to make the expansion ratio longer than the effective compression ratio. The turbocharger still provides a meaty torque plateau in the tach's mid-range, but the engine note is gritty and its response off the line is sluggish due mainly to a long-travel accelerator pedal. The engine runs out of steam higher in the rev range and the eight-speed automatic is slow to downshift, making passing or merging somewhat strained propositions. There is a caveat, which is that we drove the Tiguan exclusively at high elevations in Colorado. Even so, this engine has help breathing, and the 2.0T—the only engine choice for now—left us wishing for some sort of upgrade powerplant with more oomph. And given the Budack-cycle tech, we're disappointed that the turbo four isn't able to deliver more competitive EPA numbers. The front-wheel-drive Tiguan's 24-mpg combined rating falls 6 mpg short of the CR-V's with its more enthusiastic 1.5-liter turbo four.

If the new Tiguan isn't quite as fun-loving as before, it still looks great. Its nicely creased, squared-off body is among the more pleasing designs in its class. The interior, too, rises to the top of the segment. The dashboard looks and feels upscale, with clearly organized climate and audio controls and a large, crisp-looking 8.0-inch touchscreen display in all but the base S trim, which gets a 6.5-inch screen. The leatherette upholstery found in SE and SEL models is convincing, while the top SEL Premium gets real hides and a high-tech, configurable digital gauge cluster that's not far from Audi's Virtual Cockpit system. Active-safety-feature availability isn't quite as widespread as in the CR-V, but VW does provide forward-collision warning and blind-spot monitoring on SE models and above (they're optional on the S).

2018 Volkswagen Tiguan

VEHICLE TYPE: front-engine, front- or all-wheel-drive, 5- or 7-passenger, 4-door hatchback
BASE PRICE: $26,245–$27,545
ENGINE TYPE: turbocharged and intercooled DOHC 16-valve Miller-capable inline-4, iron block and aluminum head, direct fuel injection
DISPLACEMENT: 121 cu in, 1984 cc
POWER: 184 hp @ 4400 rpm
TORQUE: 221 lb-ft @ 1600 rpm
TRANSMISSION: 8-speed automatic with manual shifting mode
DIMENSIONS
WHEELBASE: 109.8 in
LENGTH: 185.1 in
WIDTH: 72.4 in
HEIGHT: 66.3 in
PASSENGER VOLUME: 125 cu ft
CARGO VOLUME: 12 cu ft
CURB WEIGHT: 3800–3900 lb
PERFORMANCE (*C/D* EST)
ZERO TO 60 MPH: 8.2–8.4 sec
ZERO TO 100 MPH: 22.4–22.6 sec
1/4-MILE: 16.5–16.7 sec
TOP SPEED: 120 mph
FUEL ECONOMY
EPA COMBINED/CITY/HWY: 23–24/21–22/27 mpg

VW now understands that most Americans want their SUVs to be big and not too sharp. Also, now we can't stop saying Budack . . . *boo-DAK*.

While the Tiguan S has an attractive base price of $26,245—that's less than a three-row Rogue—the better-equipped trim levels can get pricey, especially when you add $1300 for 4Motion. The reasonably equipped SE model runs for $31,280 with all-wheel drive and two rows of seats; it's probably the best value. But to get features such as a power liftgate, you have to pay $34,750 for the SEL. The SEL Premium model with all the factory options tops out at $40,740, at which point you might start looking at an Audi Q5 or the much larger Atlas. For those who blanch at those costs, or for those who want to have more fun in their VW crossover, the outgoing Tiguan will remain on sale for a few more years as the Tiguan Limited, presumably with a considerably discounted base price.

For others looking for a roomy compact SUV, though, this full-figured Tiguan's price premium will be offset by the sheer amount of rig you get for the money. While we lament the diminution of driving pleasure, we understand why VW remade this small crossover into a spacious, comfortable cruiser. We suspect most buyers in the class would happily take space over pace any day.

Smaller Chip, Same Block

THE 2018 VOLVO XC60 CONDENSES THE XC90'S SEDUCTIVE POTION. _*by Joe Lorio*

▽

VOLVO KICKED OFF ITS DESIGN-LED renaissance with the XC90 crossover, followed by the S90 sedan and V90 wagon. Now comes the first new 60-series model, the XC60. Like the 90-series, the XC60 uses Volvo's Scalable Product Architecture platform. The wheelbase grows 3.6 inches over its predecessor's, but with trimmer overhangs total length is up just 1.8 inches. The XC60 is also fractionally wider and 2.1 inches lower than before, giving it a more planted look.

The longer wheelbase pays dividends in rear-seat space, a weakness of the outgoing model. The five-seat cabin's dashboard design, available TFT instrument cluster, blade-like air vents, and vertical touchscreen mimic the swank XC90's. The ignition knob and the drive-mode switch even boast the same faceted-metal finish. Volvo's Sensus interface has been tweaked; it looks au courant and is easy to use. Leather, a panoramic sunroof, and Android Auto and Apple CarPlay are all included.

As the company marches toward 2020 with its vision that "no one should be killed or seriously injured in a new Volvo," it's packed the XC60 with plenty of safety features. The standard Oncoming Lane Mitigation sounds an alarm and steers the car back into its lane if the driver crosses the centerline into the path of an oncoming vehicle. The City Safety automatic-braking system and optional BLIS blind-spot warning can now help steer to avoid a collision. Meanwhile, Volvo's optional semiautonomous steering no longer needs to follow a car in front, though it still prefers a hand on the wheel—an obvious move for a company trying to save lives.

The three trims levels, Momentum, R-Design, and Inscription, mirror those of the XC90, as do the three powertrains. The T5 turbocharged 2.0-liter inline-four has 250 horsepower and 258 pound-feet of torque; the T6 adds a supercharger, for 316 ponies and 295 pound-feet; and the T8 layers on a plug-in-hybrid system, adding a 47-hp motor-generator between the engine and the transaxle and an 87-hp motor-generator to drive the rear wheels, for a combined total of 400 horsepower and 472 pound-feet. An eight-speed automatic is standard, as is all-wheel drive. Front-drive should follow later.

We drove the T6, whose dual-charged four-cylinder moves this compact SUV energetically, the boosted four gurgling pleasantly when pushed. Gentler accelerative demands are accompanied by an occasional faint supercharger whine or turbo whistle. The engine pairs well with the polished automatic.

A control-arm front suspension with coil springs and a rear multilink setup with a single transverse composite leaf spring are standard, but the cars we drove had air springs and electronically adjustable dampers. Volvo engineers claim that making the new XC60's front and rear roll centers the same height reduces the car's tendency to pitch forward in turns relative to the outgoing model. Through a succession of quick corners, the XC60 indeed feels sportier than before and well balanced for an SUV. In dynamic mode, it also ably resists roll and deftly controls body motions; it's a shade less impressive in the default comfort setting. The few bumps we encountered on the smooth roads of sunny Spain showed us that this Volvo doesn't suffer the brittle ride of some German competitors; that's on 20-inch wheels—18- to 21-inchers are available, model-dependent.

Seeking greater driver engagement than what's in the XC90, Volvo engineers gave the XC60 faster steering response immediately off-center. The result, though, is too quick, with an insufficient on-center valley. The twitchy sensation is exacerbated by excessive assist, and effort fails to build as the wheel turns.

The steering is the only letdown in an otherwise improved driving experience. Designer-chic and luxurious, the XC60 distills the XC90's winning formula into a mid-size package.

[+] Classy looks inside and out, roomy rear seat, competent handling, lots of standard equipment. [–] Nervous steering, no front-drive model yet.

2018 Volvo XC60

VEHICLE TYPE: front-engine, all-wheel-drive, 5-passenger, 4-door hatchback
BASE PRICE: $42,495–$57,895
ENGINES: turbocharged and intercooled DOHC 16-valve 2.0-liter inline-4, 250 hp, 258 lb-ft; turbocharged, supercharged, and intercooled DOHC 16-valve 2.0-liter inline-4, 316 hp, 295 lb-ft; turbocharged, supercharged, and intercooled DOHC 16-valve 2.0-liter inline-4, 313 hp, 295 lb-ft + 2 permanent-magnet synchronous AC electric motors, front 46 hp, 111 lb-ft and rear 87 hp, 177 lb-ft; combined system, 400 hp, 472 lb-ft; 10.4-kWh lithium-ion battery pack
TRANSMISSION: 8-speed automatic with manual shifting mode

DIMENSIONS
WHEELBASE: 112.8 in
LENGTH: 184.6 in
WIDTH: 74.9 in
HEIGHT: 65.3 in
PASSENGER VOLUME: 100 cu ft
CARGO VOLUME: 30 cu ft
CURB WEIGHT: 3950–4600 lb

PERFORMANCE (*C/D* EST)
ZERO TO 60 MPH: 4.9–6.4 sec
ZERO TO 100 MPH: 14.2–15.9 sec
1/4-MILE: 13.8–15.0 sec
TOP SPEED: 140 mph

FUEL ECONOMY
EPA COMBINED/CITY/HWY: 23–24/21–22/27–28 mpg (gas models)
EPA COMBINED: 57/27 MPGe (plug-in hybrid, battery charged/depleted, *C/D* est)

JOIN THE CRUSADE TO

SAVE THE MANUALS

The manual gearbox and ability to drive it are endangered. Driving enthusiasts of the world unite!

SHOP THE COLLECTION ONLY AT SHOPCARANDDRIVER.COM

FREE SHIPPING
PROMO CODE: STM2016
($30 minimum purchase)

CAR AND DRIVER

PROMOTION

JOIN CAR AND DRIVER
AT M1 CONCOURSE FOR

CARS AND COFFEE

SATURDAYS 8:00-11:00 AM

August 5 | September 23
164 South Blvd W | Pontiac, MI

Visit M1Concourse.com for the latest
Cars and Coffee news & schedule

M1 CONCOURSE

✓Yes

✓Yes

xNo

✓Yes

✓Yes

✓Yes

✓Reliably Low Prices
✓Easy To Use Website
✓Huge Selection
✓Fast Shipping
www.rockauto.com

RA ROCKAUTO.COM
ALL THE PARTS YOUR CAR WILL EVER NEED

Advertisment

How To: Restore Your Body

In a year when several health discoveries have already made headlines, this one may be the biggest yet.

Dr. Rand McClain, the Los Angeles based “Doctor to the Stars,” released his new technique for what some are calling the Body Restore formula.

His science is based on technology that was actually partially banned by a U.S. Establishment in 2001. However, Dr. McClain and his partners have found a way that allows them to go and take their discovery straight to the American people.

Dr. McClain revealed he’s already offering to his celebrity and pro-athlete clients with incredible results.

In the video presentation, he details how some very big name athletes are achieving increased strength, healthier bodies, and even more energy.

But what’s really turning heads is that McClain isn’t offering this as an injection, surgery, or medical procedure — which is what his health clinic in Los Angeles is famous for.

Instead, the method involves one simple thing: A drink. He has all the clinical trials, the data, he’s conducted the test groups... it not only works, it works really well. McClain feels the technique — which has been shown in clinical trials — works best for people over 40, particularly those who may be experiencing excessive fatigue, weaker bodies, and even foggy thinking.

And when Dr. McClain dropped the final bombshell — video footage of the results he experienced after using the method on himself — it became clear that the discovery is nothing short of groundbreaking, of course your indivitual results will vary, as with any new method.

While surgery is the benchmark and Dr. McClain charges $20,000 and up, he feels he can offer Americans a new method which provides outstanding results.

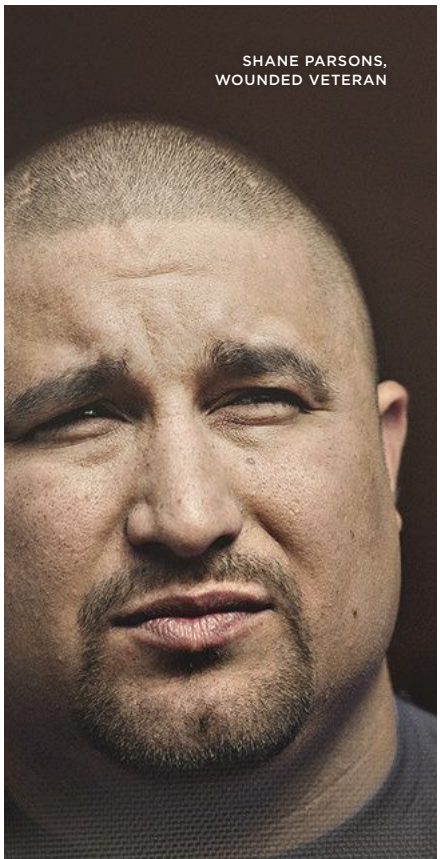
But the latest development in this story came when the video version of the presentation was made available to the public online. As of this writing, the video has over 3 Million views and is quickly becoming a social media phenomenon.

This is the video that many might not want people to see. But if the link is working, that means the video is still viewable…for now.

Watch the shocking presentation at
www.LCR27.com

Dr. McClain calls out both the medical industry and certain agencies. One viewer commented: “Why did I not know this before? Rand is telling it like it is...we need more doctors like this!”

See his presentation here
www.LCR27.com



SOMETIMES THE HARDEST FIGHT COMES AFTER THE BATTLE.

Wounded Warrior Project® long-term support programs provide these brave men and women whatever they need to continue their fight for independence. At no cost. For life. Help us help more of these warriors in their new life-long battle. Find out what you can do at *findWWP.org*.

WOUNDED WARRIOR PROJECT
FindWWP.org

©2017 WOUNDED WARRIOR PROJECT, INC. ALL RIGHTS RESERVED.

BRAKEWORLD

GUARANTEED BEST PRICE • LARGEST SELECTION
GUARANTEED FITMENT • ADVICE YOU CAN TRUST

ULTRA HIGH QUALITY ROTORS
• Massive Stopping Power
• Cooler Brakes
• Longer Rotor Life

DISC TALIA
brembo

PERFORMANCE BRAKE PADS
• NO BLACK DUST
• Super Quiet & Clean
• Shorter Stopping Distance
• Longer Pad Life
• Advanced Ceramic & Kevlar Pads

STAINLESS STEEL BRAKE LINES

PROTECTED NANO COATED ROTORS
AVAILABLE IN:
• Chrome • Black
• Red • Gold
• Blue

SHOP ONLINE 24/7 WWW.BRAKEWORLD.COM
TOLLFREE: 866.272.5396 WHOLESALE PRICES!!

Rated #1 by The Wall Street Journal
DR.COLORCHIP
AUTOMOTIVE PAINT CHIP REPAIR SYSTEMS

Dramatic chip repairs are this easy!

1. Dab
2. Smear
3. Blend

...And no paint blobs!

Go to our website to see how our new Squirt 'n Squeegee kit can quickly repair 100's of chips

"The Cure for Road Rash"
4 paint chip repair kit sizes: $39.95 - $64.95
ORDER YOUR KIT TODAY!
DRCOLORCHIP.COM • 866.372.2548

PARTS EXPRESS
YOUR ELECTRONICS CONNECTION

The TOWER of POWER
Ultimax Series subwoofers
DAYTON AUDIO

SAVE $5 ON $60 ORDER!
Use promo code CDMS93
Offer expires 10/31/17

Over 18,000 audio/video products available at parts-express.com
1-800-338-0531
725 Pleasant Valley Dr. • Springboro, OH 45066

NEW!
Oil Vanish™
Oil Stain Remover

Before
After

Available at these fine retailers
AutoZone
Rural King
BOND AUTO PARTS
ACE
Do it Best
MENARDS
O'Reilly AUTO PARTS in participating stores
eEuroparts.com
THE HOME DEPOT
NAPA

NEW!
Oil Vanish
Oil Stain Remover
Removes Oil & Grease Stains from Concrete Driveways Garages & Parking Areas

Quickly dissolves oil stains from driveways, garages and parking areas.
Penetrates deep to lift the toughest stains - new or old.
Easy-to-Use: Apply, Scrub and Rinse.
Visit OilVanish.com

MARKETPLACE.....For advertising information call 212-649-4206, 9am-5pm EST

WHATCHA GONNA THEY

DO WHEN COME FOR YOU?

HOW FAST DOES YOUR CAR NEED TO BE TO OUTRUN A COP?

BY EZRA DYER PHOTOGRAPHY BY CLINT DAVIS

YOU'RE WATCHING TV, A SHOW IS ON WITH A NAME LIKE AMERICA'S MOST INBRED: HIGH-SPEED PURSUITS, and you notice a trend. Anytime you see a police chase, the fugitive is driving a vehicle woefully inadequate for the task. There is a 100 percent certainty that if you see a Pontiac LeMans in a police chase, it's the crappy Daewoo-sourced hatchback from the 1980s. You almost never see anything good making a desperate run for it.

AH, BUT WHAT IF? AT WHAT POINT DO YOU HAVE A CAR THAT'S FAST ENOUGH TO ACTUALLY OUTRUN THE POLICE? To find out, we'd need a collection of variously capable civilian machines, plus a cop car, a cop-car driver, a track, Racelogic GPS-based data loggers, and handcuffs. Sure, we already had the handcuffs, but the rest of it took some doing. Nonetheless, one fine morning we convened at Carolina Motorsports Park (CMP) in Kershaw, South Carolina, to find out which cars are fit for a life of crime.

On the law-enforcement side, we chose the Dodge Charger Pursuit, possibly the most aggro police car ever built. The front-end styling alone would cause Pope Francis to break out in sweat. This car knows your secrets, and it can get them out of you the easy way or the hard way. But it would prefer the hard way.

With a 370-hp Hemi and upgraded brakes and suspension, this is the cop car you don't want to tangle with—it holds the record for fastest lap in Michigan State Police testing at Grattan Raceway. To drive it, we recruited Greg Haas, who is not a cop. No, he's the guy who teaches the cops how to drive. He can rip a J-turn in a Crown Vic while doing the *New York Times* crossword puzzle. We wouldn't think to shortchange our Pursuit with some peach-fuzz greenhorn who's never thrown a spike strip [see "If You Can't Catch 'Em, Trap 'Em," page 131].

Our escape vehicles, in ascending order of bad-assery: the Toyota Yaris iA, the Volkswagen Golf GTI, the Chevrolet Camaro SS 1LE, and the Ferrari 488GTB. Carolina Motorsports Park is a 2.3-mile road course with crests and blind corners that replicate a country road. We'll do a rolling start on the front straight, then see what happens over the course of a lap—our assumption being that if you haven't made an escape within two miles, you're probably not making one. In an experiment like this, you might expect that we'd gradually climb the ladder of performance. Instead, we decided to get the obvious ones, fast and slow, out of the way first.

Top: The Yaris iA looked sad about being caught even before it was caught, which happened almost immediately. Above: Instructor Greg Haas.

Toyota Yaris iA

It's a rebadged Mazda 2. It has 106 horsepower. And it's a great way to end up in jail!

We included the Yaris iA as a baseline, a representative of the caliber of hardware that you'd normally see in a police chase. Even the burgundy hue of its paint seems calculated to temper our expectations. "It's a color that says, 'I'm not ready for full-on red, but I'm a sporty fellow,'" says Haas.

After a lap to get rolling, we hit the front straight with the belligerent Charger filling the Yaris's mirrors. It's hard to overstate the level of anxiety surrounding the events that follow. The blue and red lights go on behind me and, for the first time in my life, I do something other than pull to the shoulder. It feels so unnatural to open the throttle instead of hitting the brakes. The act of fleeing, of indulging the taboo, unleashes a torrent of adrenaline that has me thinking, for a moment, that maybe I can whip this horse hard enough to make my escape. Sudden-onset bad judgment is a disease to which I'm far from immune, and surely the root cause of most police chases.

With my nervous system short-circuited by dreams of freedom, I drive way too deep into the first corner, skid off, and plow into the overrun area in a geyser of sand. From the moment the lights went on to the moment I went off: 10 seconds. You can be as cool as you like, but a lit-up Charger in your rearview mirror would turn Norm MacDonald into Bobcat Goldthwait.

We finish the lap and I discover that the little Yaris is actually hilarious on the track, given to huge lift-throttle drifts. Sure, those drifts happen at 40 mph, but style points must count for something. Nonetheless, the data confirms that it isn't much of a fight: The Charger catches the Yaris in three seconds.

VERDICT: Call your bail bondsman.

Ferrari 488GTB

Is the 661-hp Ferrari 488GTB quicker than a police car? Sure, that's the way the numbers look, but we figured we'd better get them both on the track and drive around real fast just to check. Fun fact: There is a huge gold mine just down the road from CMP, and, after a few laps in the 488, I wish I owned it. At the current price of gold, I'd need to set aside about 18 pounds to secure this particular Ferrari. Where's my pickax?

A few years ago, it was hard to imagine that Ferrari would build anything faster than the 458. But it always does, and the 488GTB is a whole new kind of quick. Apparently, its Fiorano lap time beats the 458 Speciale's by half a second, but I'd wager that its zMAX Dragway elapsed time would torch most anything this side of a Bugatti Chiron. Ferrari quotes a zero-to-124-mph time of 8.3 seconds. Yowza.

When the Charger's light bar comes to life, the 488 puts on a show of its own, the red LEDs across the top of the steering wheel firing left to right to signal the imminent need to pull the upshift paddle. The 3.9-liter V-8 revs so quickly—*BLAAP! BLAAAAP! BLAAAAAAAP!*—that you pull that paddle like a kayaker fighting the Saltstraumen tides. In a lesser car, you might worry about what's behind you, but in the 488 you're consumed with the constant onslaught of corners. What happened to the straights?

The 488's chassis can handle the power, with colossal carbon-ceramic brakes, gluey Michelin Pilot Sport Cup 2s, and an electronically controlled limited-slip differential that makes you feel like a driving god. Exiting a 70-mph corner about halfway through the lap, the 488's tail slides gently wide, scribing twin stripes on the pavement. For our distant pursuing officer, they're graffiti by an unseen artist, a Banksy in rubber.

In our made-up escape, you'd need to get only far enough away to pull up behind some bushes as the cop car flies past. By the end of a lap, the 488GTB is so far ahead you could have it valet parked.

VERDICT: The rich get away with everything.

Chevrolet Camaro SS 1LE

Doesn't "1LE" sound like something you'd yell to call a hog? "*WONN-ELLL-EEEEE!* Slop's in the trough!" Maybe it's not the catchiest nomenclature, but that alphanumeric signifies a Camaro with all the track-slaying accouterments—magnetic ride control, six-piston Brembos up front, and an electronically controlled limited-slip diff. It's a Camaro that'll pull more than 1.00 g in a turn. Civilians catalog the tells for police vehicles, like steelies on an Explorer, but maybe this could work the other way around: Cops should know that a matte-black hood signals the 1LE, a Camaro that will smelt any municipal ore barge.

Armed with GM's Performance Traction Management, the 1LE makes it easy for the driver to simply flatten the throttle at corner exit and let that trick diff and sophisticated traction control figure out the rest. I also indulge the six-speed manual's rev-match feature on downshifts, freeing mental bandwidth that can be devoted to steering, braking, and humming my favorite Dokken song.

The Camaro pulls the Charger on the straights, but the corners are where it really leaves it for dead. The good ship Charger, with 18-inch steel wheels, Goodyear Eagle RS-A all-season tires, and intrusive stability control (apparently this cop car can't do donuts), is more than a quarter-mile back after one lap. That distance will allow you to cut into the alley behind your favorite vape shop until the heat dies down.

VERDICT: You'll probably go to jail, but not for this.

Volkswagen Golf GTI

This car would appear to be our over-under proposition. At 220 horsepower, the GTI is down a full 150 horses on the Charger. But with the Sport trim's limited-slip differential and Golf R brakes, the agile VW should make up time in the tight sections. Will that be enough to outrun Johnny Law?

Beyond the first two corners, the answer begins to crystallize. The GTI digs in and pivots under braking, then puts down everything it's got on the way past the apex. It doesn't look like much on paper, but this thing is a real-world ass-hauler. I glance in the rearview and see the big Dodge barreling down behind me, rear axle twitching in anticipation of the straight, just hating the corner. If we were on Route 318 in Nevada, with straights for days, the Charger would be spinning me by now. And if this were Tail of the Dragon, the Charger would last about three corners before my taillights disappeared for good.

The Camaro SS 1LE is so good that Dyer could outrun our cop, even when turning a huge imaginary steering wheel while wearing a turquoise shirt.

Here's the thing, though. Most roads aren't that extreme either way, and CMP strikes a realistic middle ground. So while I bank time on the corners, I give it up on the straights. The big Dodge isn't reeling me in, but I'm not getting rid of it, either. After one lap, I have a modest six-second lead. Is that enough?

I guess it depends. If there's a fork in the road, maybe six seconds and a lucky coin toss would see you through. But unless you've got a lot more road, you're probably screwed.

VERDICT: You better hope the chase takes you through an autocross course.

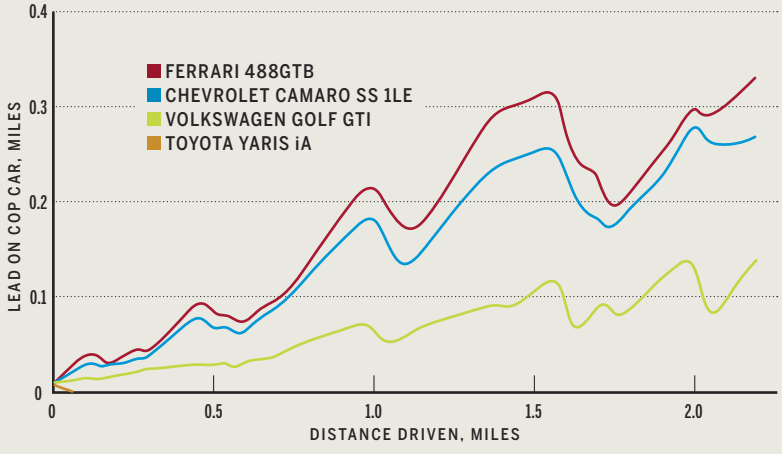
To outrun a cop, you don't just need something quicker than a cop car. You need something a lot quicker.

And even then, you're in for a world of hurt. Cops have radios and helicopters and colleagues who would be glad to park their own Chargers across your path. They have dash cams that record your plate, and some of them even have sticky-locator-dart cannons they can fire at your bumper. Even if you escape, modern police technology practically assures that your freedom is only temporary.

Thus, silly track exercises aside, our official advice is to pull over and plead for mercy. Especially if you're in a Yaris.

RUNNING FROM THE LAW

The graph doesn't lie: The Dodge Charger Pursuit occasionally closes the gap on the 488GTB and the Camaro SS 1LE, but that's only because those cars are so far ahead. With such a large lead, the Ferrari and Chevy are often cornering while the Pursuit is charging down a straight.



IF YOU CAN'T CATCH 'EM, TRAP 'EM

BY DAVID BEARD

A police chase is one of the best forms of live television—we all secretly root for the bad guy, hoping to see Bo and Luke Duke–level skills emerge as the perpetrator rides into the sunset unscathed. Rarely is that the case, though. Certainly, running from the police is a terrible idea and we do not condone it. It puts the lives of innocent civilians and underpaid officers at risk. That's why the following pursuit-terminating tools exist. Let us examine:

STINGER TROOPER

PRICE: $499

Hand-deployed spike systems are the most common way of slowing a fleeing vehicle. The Stinger system from Federal Signal can be thrown across the road or pulled across by the attached 40-foot rope; the former technique requires training and practice. The Stinger is compact, roughly the size of a briefcase, and weighs 9 pounds. The reusable, durable, and flexible plastic modular base holds 110 1.8-inch hollow steel spikes, all of which are easily replaceable. When deployed, the unit stretches 15.5 feet and uses rocker arms to tilt the spikes into the tire at the correct angle, ensuring maximum penetration. Our testing revealed that running over spike strips in real life is nothing like what you imagine. There is no crazy explosion. The car doesn't go flipping through the air. The spikes just cause a controlled air leak. Our front tires went flat 20 seconds after collecting nine spikes. The Stinger system is a low-cost and effective way of taking out tires, but there's one problem: In order to retract the device, the officer using the system can never be more than 40 feet out of harm's way.

NIGHTHAWK

PRICE: $2995

Arizona-based Pacific Scientific Energetic Materials Company takes traditional hand-deployed spikes to a new level with its remotely operated NightHawk system. Within its waterproof Pelican case are 10 Stop Sticks, each 15 inches long and containing 15 spikes, which are linked together to extend up to 15 feet. From up to 100 feet away, an officer can deploy the system: A replaceable aluminum launch tube ($175) fires a three-pound drogue, which pulls the strip across the road and drops it in the path of the unsuspecting criminal, all in under two seconds. Once the perpetrator runs over the strip, the system's operator can remotely activate a drill motor to retract the strip, also in under two seconds. A standard 18-volt battery powers the system. Both of our Mitsubishi Eclipse's front tires, as well as its right rear, were fully deflated within 40 seconds, suffering a combined nine punctures. The NightHawk's high cost might keep this model out of the hands of some law-enforcement departments, but it is a small price to pay to better protect officers.

ARRESTNET

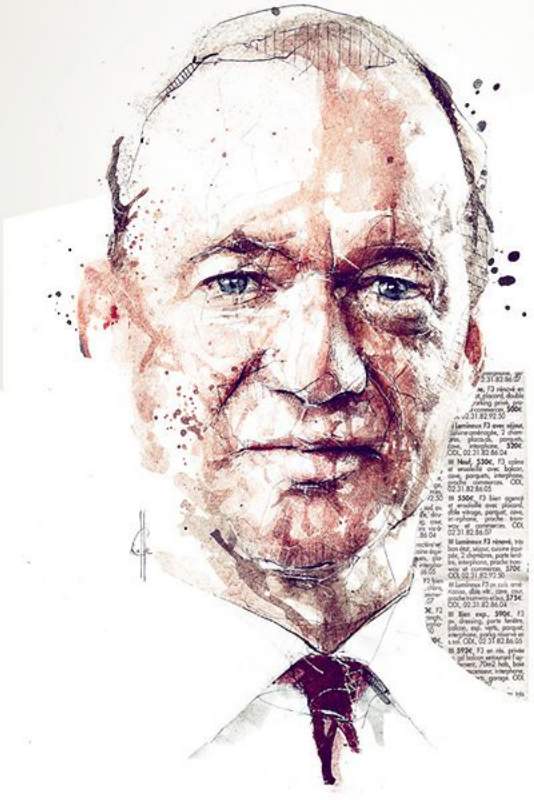
PRICE: N/A

This prototype, also from PacSci EMC, represents the future of roadside vehicle immobilization. Also powered by an 18-volt battery, the deployment pod contains an onboard nitrogen supply and a net rolled up in ripstop fabric. When remotely activated, nitrogen stored at 2300 psi inflates tubes sewn into the fabric, rolling it out and laying it flat and firm across any surface to reveal an outlaw's worst nightmare: a leading edge of 96 tire-deflating, barbed stainless-steel spikes that are attached to a 16-foot-by-16-foot net made of Dyneema, a high-strength polyethylene material. With the Eclipse traveling at 50 mph, driving over the net sounds like an airbag exploding. Full entanglement required just 0.5 second and 37 feet, stalling the engine, locking up the tires, and bringing the car to a stop in 207 feet. There's no escaping the net; driving backward only makes things worse. Once production begins in late 2017, the system will be contained, like the NightHawk, in a waterproof case capable of being left on the roadside—near border crossings, for example—for extended periods of time.

What I'd Do Differently
Mike Flewitt, 55

McLaren's CEO tells us about starting at the bottom at Ford, being seduced by Ron Dennis, and what it's like to be beaten (on the track) by his wife.

► *interview by* MIKE DUFF



C/D: ***Considering you're from Liverpool, does everyone ask you about soccer and the Beatles?***

MF: Not in the U.K., but I do get it when I'm abroad. I'm always asked if I'm a red or a blue—a Liverpool FC or an Everton fan—and whether I like the Beatles. I'm a red, and yeah, I do like the Beatles.

■ ***Is it fair to say you started at the bottom with Ford?***

☐ I had started university, but I didn't enjoy it. I stayed for one year and left. I got a job at the Ford factory in Halewood, which was good money in Liverpool at the time. I was fitting parcel shelves to the Ford Escort, the first hatchback version. I liked it and applied for a technical apprenticeship, so I got trained in engineering and management. I came off that three years later as a foreman.

■ ***How did you get on with the famously militant unions there?***

☐ They were very powerful. If they disagreed with management, they would strike or just stop working. We had a lot of disputes; it was incredibly confrontational. I went out to find my car smashed up once. I was a foreman, which made me a manager, even if I was the most junior manager imaginable.

■ ***After a stint at Rolls-Royce, you found yourself in Sweden running AutoNova, a joint venture between Tom Walkinshaw's TWR and Volvo. Then you bounced back to Ford . . . Did you find yourself getting dizzy?***

☐ TWR was a great business, but Tom also owned Arrows, the Formula 1 team, and they were struggling. We were lending money across from TWR and when Arrows failed, those debts became worthless and brought down TWR, too. Ford contacted me and I went to Cologne to see a guy called John Fleming, who was VP of manufacturing but had been my plant manager at Halewood. I became European quality director, and although I'm not taking the credit, we were building amazingly high-quality cars in Europe at the time. We were constantly benchmarking ourselves, and it was probably only Honda at a comparable level.

■ ***You might have reached the top at Ford, so why did you step off the escalator for McLaren?***

☐ It was a hard decision. I was approached by a recruiter about the COO role at McLaren and I said I wasn't interested, but then they called me back and said, "Will you just have a chat with Ron Dennis?" That was a huge mistake because Ron Dennis is the most persuasive person in the world.

■ ***You were quickly made CEO of McLaren. Having worked for large and small carmakers, what is the same and what's different?***

☐ The key is having good processes, that's the same regardless of size, but also having great people and being able to motivate them. When I left Ford of Europe, I nominally had around 44,000 people working for me across 23 factories, but really I had about 10 people who reported directly to me, and everything had to be passed up and down through the chain. What comes out of the difference in scale are much closer relationships and the ability to shorten the whole process. If the directors here want to have a meeting first thing in the morning, we just do that. It's not like having to arrange a meeting in a month's time or flying to Detroit to have it.

■ ***How do you respond when McLaren is compared to Ferrari?***

☐ It's flattering that in less than six years from launch, people are talking about us in the same breath as Ferrari or Porsche, but I do think our cars are differently focused. We never set out to produce a better Ferrari; we set out to produce a McLaren. Our focus is absolutely on driving pleasure. A McLaren isn't a status symbol or a lifestyle acquisition. In 50 years, I hope people are doing it the other way around: "Is Ferrari getting close to McLaren?"

■ ***You own and race several classic Lotuses and a McLaren 570S GT4. You often compete against your wife. How is that?***

☐ Humiliating! We haven't raced against each other in McLarens yet, but she will probably be quicker than me. She's extremely good and very competitive. In the classic cars, I'd say we're about the same.

■ ***Looking back, is there anything you'd do differently?***

☐ I enjoyed my time at TWR, but it wasn't a highlight of my career. I had to oversee making about half the people redundant before we sold the company. I'd turned down an offer from Ford to go there; if I'd taken that I'd have been at Ford earlier. That would have been smarter from a career point of view, but it all worked out in the end.

■ ***You once said that even if Mark Fields quit as Ford CEO, you wouldn't be interested in the job. When he left, did you reconsider?***

☐ I love Ford, and if I didn't work at McLaren, then Ford would probably still be my choice. I worked for some great people there. I'm still in touch with Alan Mulally; he's a hero of mine. But I love McLaren more than any other job I've had. I can't imagine anything else I'd rather do. If the shareholders let me, I'll do this until I retire.

CUSTOMER SERVICE
Visit service.caranddriver.com or write to Customer Service Department, *Car and Driver*, P.O. Box 37870, Boone, IA 50037 for inquiries, requests, changes of mailing and email addresses, subscription orders, payments, etc.

***CAR AND DRIVER*®** (ISSN 0008-6002) VOL. 63, NO. 3, September 2017, is published monthly, 12 times per year, by **Hearst Communications, Inc.**, 300 West 57th Street, New York, NY 10019, U.S.A. Steven R. Swartz, President & Chief Executive Officer; William R. Hearst III, Chairman; Frank A. Bennack, Jr., Executive Vice Chairman; Catherine A. Bostron, Secretary. Hearst Magazines Division: David Carey, President; John A. Rohan, Jr., Senior Vice President, Finance. **© 2017 by Hearst Communications, Inc.** All rights reserved. Trademarks: ***Car and Driver* is a registered trademark of Hearst Communications, Inc.** Periodicals postage paid at New York, NY, and additional mailing offices. Canada Post International Publications mail product (Canadian distribution) sales agreement no. 40012499. Editorial and Advertising Offices: 1585 Eisenhower Place, Ann Arbor, MI 48108. **SUBSCRIPTION PRICES** United States and possessions: $13.00 for one year; Canada, add $10.00; all other countries, add $24.00. **SUBSCRIPTION SERVICES** *Car and Driver* will, upon receipt of a complete subscription order, undertake fulfillment of that order so as to provide the first copy for delivery by the Postal Service or alternate carrier within 4–6 weeks. **MAILING LISTS** From time to time, we make our subscriber list available to companies who sell goods and services by mail that we believe would interest our readers. If you would rather not receive such offers by postal mail, please send your current mailing label or an exact copy to Mail Preference Service, P.O. Box 37870, Boone, IA 50037. You can also visit preferences.hearstmags.com to manage your preferences and opt out of receiving marketing offers by e-mail. *Car and Driver* assumes no responsibility for unsolicited material. None will be returned unless accompanied by a self-addressed stamped envelope. Permissions: Material in this publication may not be reproduced in any form without permission. Back Issues: Back issues are available for purchase in digital format only from your app store of choice. **POSTMASTER** Send all UAA to CFS. (See DMM 507.1.5.2); **NON-POSTAL AND MILITARY FACILITIES** Send address corrections to Car and Driver, P.O. Box 37870, Boone, IA 50037. **Printed in the U.S.A.**

illustration by FLORIAN NICOLLE

ADVERTISEMENT

The Esquire Manhattan
is made with superior Jefferson's bourbon and a combination of the finest sweet and dry vermouth and bitters. Crafted with the editors of Esquire and barrel-aged for 90 days, the result is a damn good cocktail. Serve it up or on the rocks. No labor or equipment needed.

AVAILABLE AT FINE LIQUOR STORES NATIONWIDE

Helping you feel safe in your lane.

The Toyota Corolla's standard **Toyota Safety Sense™ P (TSS-P)**[1] is designed to help keep passengers safe with a suite of systems including Lane Departure Alert with Steering Assist.[2] This feature is designed to detect visible lane markers on the road, alert the driver if an inadvertent lane departure is detected and may also provide slight, corrective steering inputs to help keep the vehicle in its lane. With TSS-P's Lane Departure Alert, you'll feel greater peace of mind on the road.

COROLLA

Toyota Safety Sense™ Standard

Options shown. 1. Drivers are responsible for their own safe driving. Always pay attention to your surroundings and drive safely. Depending on the conditions of roads, weather and the vehicle, the system(s) may not work as intended. See *Owner's Manual* for additional limitations and details. 2. Lane Departure Alert with Steering Assist is designed to read lane markers under certain conditions. It provides a visual and audible alert, and slight steering force when lane departure is detected. It is not a collision-avoidance system or a substitute for safe and attentive driving. Effectiveness is dependent on road, weather and vehicle conditions. See *Owner's Manual* for additional limitations and details. ©2017 Toyota Motor Sales, U.S.A., Inc.

TOYOTA | *Let's Go Places*